

FUNCTIONAL REQUIREMENTS DOCUMENT

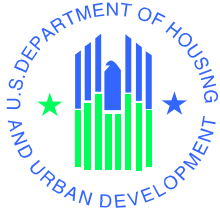
*Single-Family Mortgage Asset Recovery Technology
(SMART)—Baseline*

U.S. Department of Housing and Urban Development

May 15, 2009

Revision Sheet

| Release No. | Date | Revision Description |
|-------------|---------|-----------------------|
| Rev. 1 | 03/2008 | Post-transition draft |
| Rev. 2 | 08/2008 | Revised draft |
| Rev. 2.5 | 05/2009 | Updated draft |
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Functional Requirements Document Authorization Memorandum

I have carefully assessed the baseline Functional Requirements Document for the Single-Family Mortgage Asset Recovery Technology. This document has been completed in accordance with the requirements of the HUD System Development Methodology.

MANAGEMENT CERTIFICATION—Please check the appropriate statement.

- _____ The document is accepted.
- _____ The document is accepted pending the changes noted.
- _____ The document is not accepted.

We fully accept the changes as needed improvements and authorize initiation of work to proceed. Based on our authority and judgment, the continued operation of this system is authorized.

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Functional Requirements Document

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1.0 GENERAL INFORMATION

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1.1. Purpose

The Functional Requirements Document (FRD) defines the functional requirements for the **Single-Family Mortgage Asset Recovery Technology (SMART)** system. **SMART** is a Microsoft® Windows®-based Graphical User Interface (GUI) client/server application used to manage loan processing operations for the U.S. Department of Housing and Urban Development (HUD).

Currently, **SMART** is used to perform a wide range of Federal Housing Administration (FHA) Insured and Secretary-Held first, second and subordinate note and mortgage loan servicing functions, specifically processing the mortgage transactions for both forward and reverse mortgages, including interest, appreciation, amortization and other calculations for the Secretary-Owned Title II portfolio.

The **SMART** system is a major application that services a total of 704,216 loans:

- Open loans—514,367
- Closed loans—188,868¹

The system allows users to search and review loan information, foreclosure and bankruptcy activity, make and review disbursements, run reports, send letters, and manage and control various other loan servicing activities.

The current contract for loan servicing, contract C-DEN-02188 (Contract), and system maintenance of **SMART** was awarded to C & L Service Corporation (CLS) and its subcontractor Morris-Griffin Corporation (MGC), collectively known as CLS-MGC, on September 30, 2007.

1.2. Scope

The **SMART** system streamlines the process of managing the HUD mortgage loan portfolio. The **SMART** system allows users to search and review loan information, foreclosure and bankruptcy activity, make and review disbursements, run reports, send letters, perform customer service duties and manage and control various other loan servicing activities.

1.3. Project References

- HUD System Development Methodology, Release 6.05
- HUD Handbook 2400.25, Revision 1, U.S. Department of Housing and Urban Development Information Technology Security Policy Handbook
- **SMART** Configuration Management Plan
- **SMART** Data Requirements Document
- **SMART** Risk Assessment
- **SMART** System Security Plan
- **SMART** System Subsystem Specifications

¹ Closed loans may require inquiries, correspondence, or congressional servicing.

1.4. Acronyms and Abbreviations

| Abbreviation | Description |
|--------------|---|
| ACA | Asset Control Area |
| ACH | Automated Clearing House |
| CCB | Change Control Board |
| CHUMS | Computerized Homes Underwriting Management System |
| CI | Change Item |
| CLS | C & L Service Corporation |
| COI | Certificate of Indebtedness |
| DRD | Data Requirements Document |
| FHA | Federal Housing Administration |
| FRD | Functional Requirements Document |
| GNND | Good Neighbor Next Door, formerly known as Officer/Teacher Next Door (OTND) |
| GTR | Government Technical Representative |
| GUI | Graphical User Interface |
| HECM | Home Equity Conversion Mortgage |
| HUD | U.S. Department of Housing and Urban Development |
| HUDAR | HUD Acquisition Regulations |
| IT | Information Technology |
| LAN | Local Area Network |
| MGC | Morris Griffin Corporation |
| MS | Microsoft |
| NSC | National Servicing Center |
| PC | Partial Claims |
| SAMS | Single Family Acquired Asset Management System |
| VPN | Virtual Private Network |
| WPP | Wachovia Positive Pay |

1.5. Points of Contact

1.5.1. Information

| Organization | Title | Name and Address |
|--------------|------------------|--|
| HUD | Deputy Director | Felicia B. Jones National Servicing Center 2 West Second St., Suite 400 Tulsa, OK 74103 (918) 292-8958 Felicia.B.Jones@hud.gov |
| MGC | Contract Manager | Alexina Person 2488 East 81 st St., Suite 700 Tulsa, OK 74137 (918) 551-5301 zperson@cls-mgc.com |
| MGC | Director of IT | Matthew Blackwell 4221 Forbes Blvd, Suite 240 Lanham, MD 20706 (240) 965-1765 mblackwell@morrisgriffin.com |

1.5.2. Coordination

| Organization | Responsibility |
|--|---|
| C & L Service Corporation | Current prime contractor for current contract vehicle to maintain and enhance the SMART system |
| First American Corporation | Provider Tax Payment Service (TPS) file used for determining property tax delinquencies |
| HUD | Owner of the SMART system; provides general oversight and director for the development and maintenance of SMART |
| LexisNexis (a division of Reed Elsevier Inc.) | Provider of Banko file for bankruptcy servicing |
| MGC | Current subcontractor to C & L Service Corporation; charged with the day to day responsibilities related to maintenance of and enhancements to the SMART system |
| Ongoing Operations LLC | Disaster recovery vendor |
| Rēkon Technologies | Vendor for release system, Rēkon2000 |
| Wachovia Bank, N.A. | Banking service provider with whom an interface exists for the exchange of checking information |

2.0 CURRENT SYSTEM SUMMARY

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2.1. Background

The **SMART** system is deployed in production and continues to undergo maintenance, including minor changes and major enhancements. Morris-Griffin assumed responsibility for maintaining **SMART** through the contract C-DEN-02188, (hereinafter the “Contract”). The organization tasked with maintaining **SMART** as a subcontractor to MGC prior to the most recent contract award was a subsidiary of Clayton Holdings, Inc. (Clayton), First Madison Services. Another Clayton subsidiary, Quantum Servicing Corporation (Quantum) was directly involved in the development of **SMART**.

2.1.1. Initial Development

SMART was initially developed under the name Mortgage Asset Recovery System (MARS) as a proprietary asset management system. The name **MARS** converted to **SMART** in February 2006. Full ownership of **SMART** was ceded to HUD under the Contract. During the transition phase of the most recent contract award, Clayton and its subsidiaries provided little in the way of system documentation.

2.1.2. Loan Servicing Functions

The **SMART** system currently supports the servicing functions related to a variety of FHA Insured and Secretary-held first, second and subordinates notes and mortgages. **SMART** is capable of handling both forward and reverse mortgages, including the functionality related to certain calculations such as interest, appreciation, amortization and others related to the Secretary-held Title II portfolio.

2.1.3. Data Sources

Though **SMART** is a standalone application, data is provided from a variety of sources including bulk data import, manual data entry, and direct data connection. The table below gives a quick snapshot of how data is used currently in **SMART**.

| Data Input/Import to SMART Data | Output/Export from SMART |
|---------------------------------|--------------------------|
| User | User |
| Lexis/Nexis (BANKO) | Lexis/Nexis (BANKO) |
| FARETS/TPS | FARETS/TPS |
| Rēkon | Rēkon |
| Strategy/A80N | Reports |
| SAMS/A80S | FHASL/P013 |
| Wachovia Positive Pay | Wachovia Positive Pay |
| SFIS/A43 | |
| CHUMS/ | |

2.1.3.1. HUD Strategy

Presently, **SMART** interfaces with the HUD Strategy mainframe system to receive loan information. Strategy is the HUD system of record for the Assignment Program loans and Partial Claim (PC) Subordinate loans. Prior to the operation of the Strategy system, HUD used the Single Family Mortgage Notes (SFMNS or F60P or F60S) system for servicing the Secretary-Held loan portfolio. SFMNS recorded, maintained, and monitored complete commercial mortgage servicing activities for Secretary-Held mortgages. It also contained the historical data for all assigned mortgages prior to 1999.

SMART is the system of record for:

- Single Family Notes
- Title II Secretary-owned first and second mortgages

Therefore, **SMART** is being enhanced to incorporate the historical data and functionality of the Strategy system. Following this, the Strategy system shall be terminated. It is anticipated that the new release of **SMART** incorporating the Strategy functionality is May 1, 2009.

2.1.3.2. HUD P013/FHASL

SMART also interfaces with the HUD P013 Interface Subsystem, a subsystem of the Federal Housing Administration Subsidiary Ledger System General Ledger (FHASL). Data extracted from **SMART** updates FHASL and appropriate accounting reports to automate the posting of transactions in FHASL as well as facilitate the reconciliation of these transactions.

2.1.3.3. Bulk Data

Bulk data is imported into **SMART** as:

- Computerized Homes Underwriting Management System (CHUMS) data
- Single Family Acquired Asset Management System (SAMS) data
- Home Equity Conversion Mortgage (HECM) Claims Disbursements from the Single Family Insurance System (A43) data
- Lexis/Nexis (BANKO) data
- First American Real Estate Tax Service (FARETS) Tax Payment Service (TPS) data

2.1.3.4. External Service Agreements

Lexis/Nexis (BANKO) and FARETS TPS are outside vendors with which MGC has service agreements for tracking bankruptcy filings, dismissal, and discharges, and reporting delinquent taxes, respectively. This information is imported from flat files and exported as listed below.

| System | Frequency ² |
|---------------------|------------------------|
| User | Daily |
| Lexis/Nexis (BANKO) | Weekly/Monthly |
| FARETS/TPS | Daily/Weekly |
| Strategy/A80N | Daily |

² If data is both imported and exported, frequency is listed in order of imported and exported.

| System | Frequency ² |
|------------|------------------------|
| SAMS/A80S | Monthly |
| SFIS/A43 | Weekly |
| CHUMS/ | Weekly |
| Reports | As needed |
| P013/FHASL | Monthly |

2.2. System Objectives and Current Functionality

2.2.1. Availability

The **SMART** system is functional and fully operational during normal business hours, defined in Section 7.1 of the Contract, as between 7:00 A.M and 7:00 P.M. (Central Time). Moreover, the system allows remote access by HUD users.

2.2.2. Authentication and Security

2.2.2.1. Federal System Warning Banner

A pre-login warning banner is displayed as dictated by the National Institute of Standards and Technology (NIST) Special Publication 800-64 Revision 1. The advisory text provided is:



Figure 1. SMART Security Disclaimer

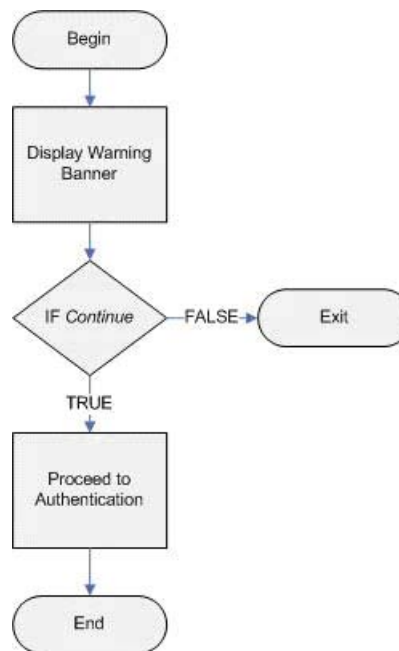


Figure 2. Federal System Warning Process Flow

Users have the option to continue to the logon screen or exit from the system if they do not agree with the terms presented.

2.2.2.2. User Authentication—Logon

Users must be authenticated to access the **SMART** system; either by using Windows® Authentication based on the individual's network credentials or by providing a database user id and password. Additionally, a drop-down menu is displayed with the available databases. Most often, only the default option is offered, limiting access to the production database while running the production executable file. If the user selects the **Cancel** button, the user exits the system.

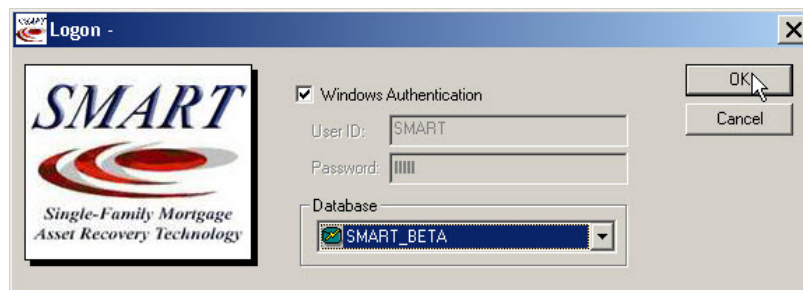


Figure 3. SMART Windows® Authentication dialog

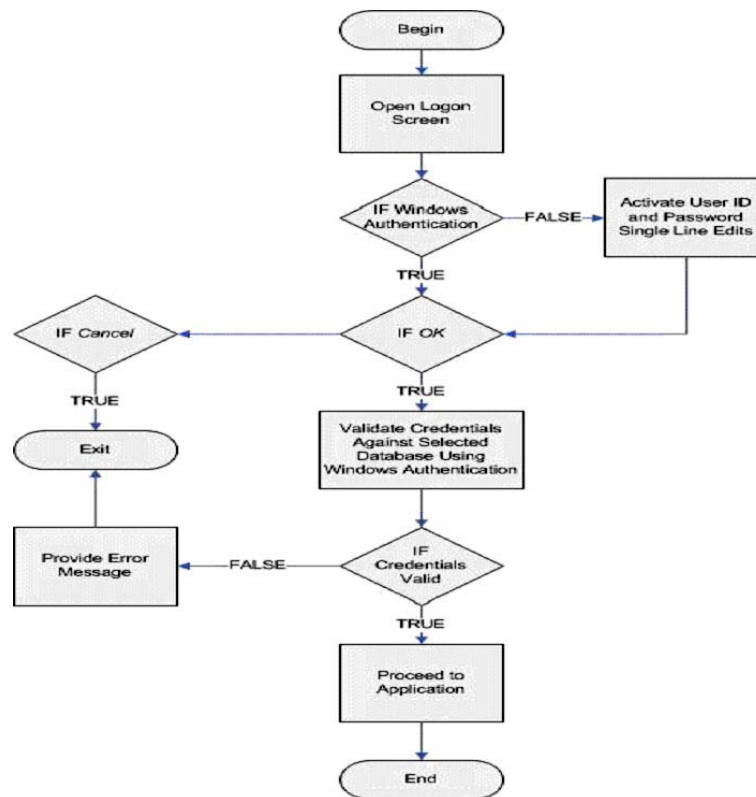


Figure 4. Windows® Authentication Process Flow

2.2.2.3. Logging

The **SMART** system incorporates three types of logging which creates an audit trail of various activities. The first two are covered fully in the **SMART System Security Plan**. The first of these two is network logging and the second is database transaction logging. The third type of logging, more appropriately within the scope of this document, is trigger-based³ within the **SMART** application code.

The trigger-based audit logging functionality focuses on recording two general types of changes in the database—loan-based changes and security-relevant changes. Loan-based changes are primarily financial or related to personal information. Security-relevant changes relate to a user or group rights.

Loan-based changes focus on the following areas:

- Automated Clearing House (ACH) Information (for an individual)
- Borrower Information
- Check Information
- General Loan Information
- Loan Exceptions
- Loan Servicing Activity
- Loan Servicing Management

³ Triggers exist within the SMART database and are associated with certain tables. A given action is performed when certain parameters are met during the insert, update or delete of information in a specific table. In the SMART system, items may only be inserted or updated but not deleted.

- Loan Transactions
- Property Information

Security-based changes focus on the following areas:

- Application Objects
- Users
- User Groups
- User Group Hierarchy

2.2.2.4. Security Interface

A security interface provides the ability to control access to all system objects by group assignment. Also, the security interface allows for the control of user assignments to various groups based on job duties. Such access should be controlled from bottom up, meaning; groups start with the least access and additional access is opened only as needed. See also **SMART System Security Plan**, Sections 1.2.1-2 and 5.2.3.

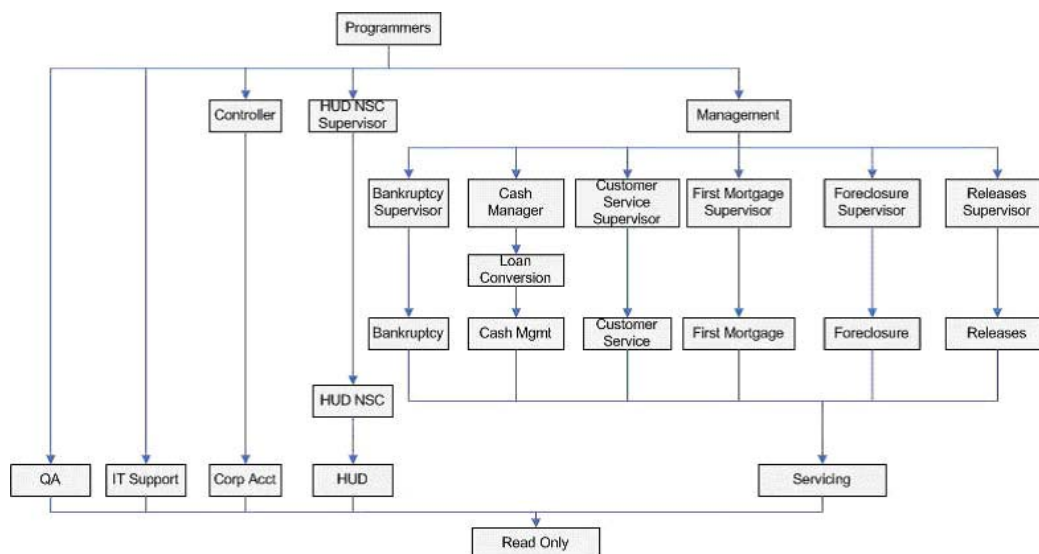


Figure 5. Security Interface

Access to the security interface is limited to system administrators. Access is provided to the main menu, **Entry|Security**, for user and group management and to **Entry|Permissions** for object management.

2.2.2.4.1. User and Group Management

Upon open of the **User/Group Management** window, a specialized tool bar is displayed. All active system users are displayed in the data window entitled **Users**. The group(s) to which a user belongs are displayed or hidden when the name is double-clicked. The same display and hide functionality applies to the data window entitled **Groups**. The **Groups** data window displays all active groups and user assignments.

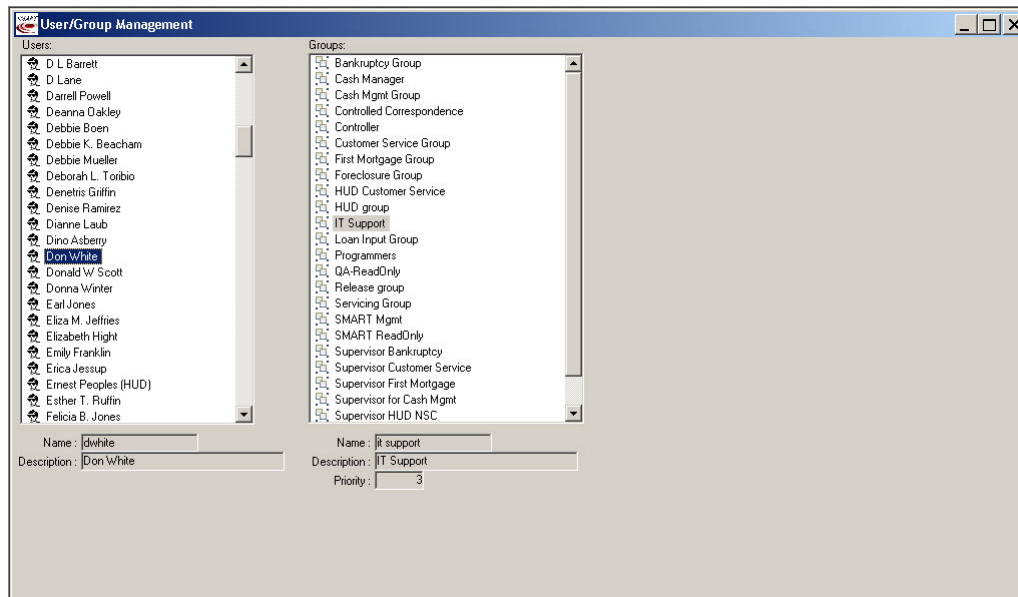


Figure 6. User/Group Management Data Window

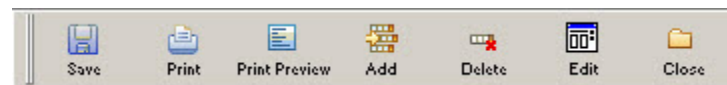


Figure 7. User/Group Management Toolbar

A master/detail data window exists for both Users and Groups. The detail data window for Users displays the user's login (**name**) and full name (**Description**). The detail data window for Groups displays the group **Name**, **Description**, and **Priority** (hierarchy, **1** being the highest level of permissions and **99** having the least amount of access rights).

2.2.2.4.2. Object Management

The **User/Object Management** window provides an interface to control the object level permissions, both for groups and individuals. Each object, including ancestor objects displays in the left data window. The details provided in the data window on the right side of the **User/Object Management** window provides the control name, status, description and type of control. The right side of the window provides a drop-down list box to show the specific group or individual permissions associated with the object. For each control associated with the particular object, a status can be selected using a drop-down list with these choices:

- Enabled
- Disabled
- Invisible
- Not Set (default)

The window provides radio buttons to show either all controls or only those with an Active status.

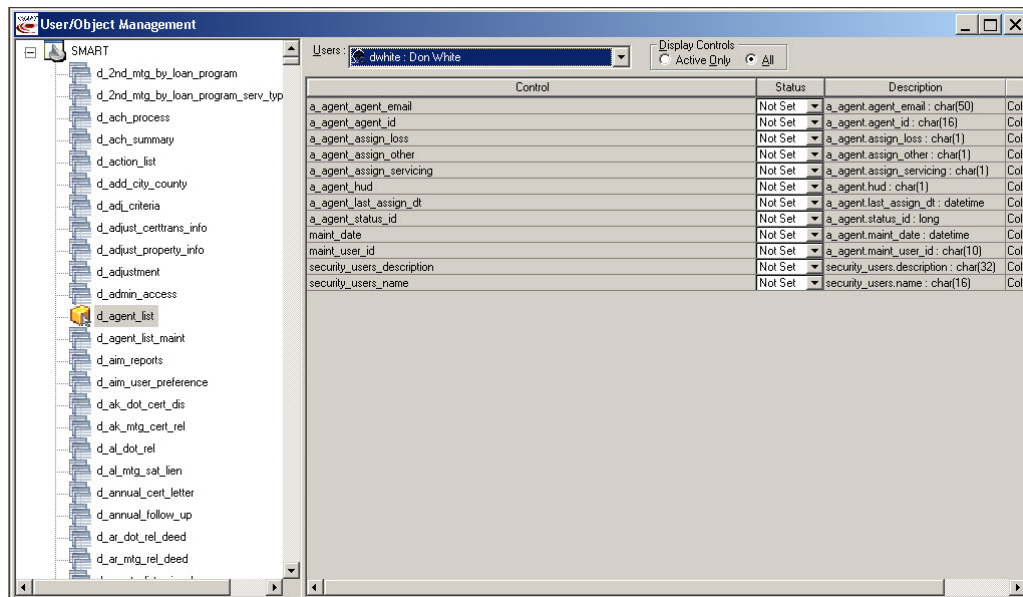


Figure 8. User/Object Management Data Window

When the User/Object Management window is open, a toolbar specific to this window is displayed. This toolbar provides the following options:

- Save
- Print
- Print Preview
- Close.

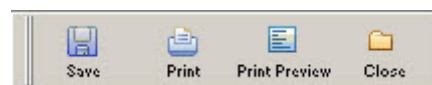


Figure 9. User/Object Management Toolbar

2.2.3. General Navigation

2.2.3.1. SMART Menu Bar

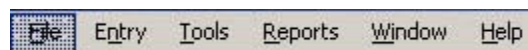


Figure 10. SMART Menu Bar

The **SMART** menu bar provides access to these functions:

- **File Menu**
 - Printer Setup
 - Print Screen
 - Exit
- **Entry Menu**
 - Loan Inquiry
 - Bankruptcy

- Foreclosure
- Mtg. Release (Mortgage Release)
- Servicing
- Maintenance
- Cust. Serv. [Customer Service]
- Security
- Permissions
- **Tools Menu**
 - Customize Tool Bar
- **Reports Menu**
 - Batch Reports
 - Foreclosure
 - Monthly/Weekly Reports
 - Servicing Release Reports
- **Window Menu**
 - Cascade
 - Tile Horizontal
 - Tile Vertical
 - Layer
 - Minimize all Windows
 - Undo
- **Help Menu**
 - About
- **Status Bar**
 - A status bar on the bottom of the main window frame provides general information related to the current action, debugging status, user and the current database.

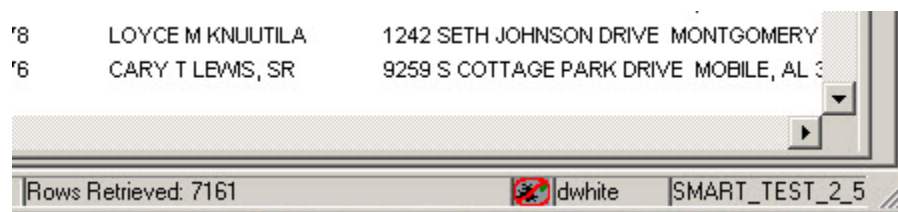


Figure 11. SMART Window Status Bar

2.2.3.2. Module Toolbar

A top-level toolbar allows access to all of the system modules, including:

- Loan
- Bankruptcy
- Foreclosure

- Mtg. Release (Mortgage Release)
- Servicing
- Maintenance
- Cust. Serv. (Customer Service)

Users close **SMART** by clicking the **Exit** button.



Figure 12. SMART Module Toolbar

2.2.4. Loan Inquiries Module

Authorized system users can search loan records based on a variety of criteria. Users additionally have the ability to view and edit loan records.⁴ Due to the different servicing requirements for the loans in the **SMART** system, HECM Assigned loans have a separate functionality set from all other, Non-HECM Assigned, loans.

2.2.4.1. Non-HECM Assigned Loans

2.2.4.1.1. Loan Summary

The **Loan Summary** tab provides information related to current balances, year to date amount paid and monthly constants. The **Loan Summary** tab provides authorized users the ability to make changes to the data within this tab.

Note: Loans in the HECM Assigned portfolio do not have a Loan Summary tab within the Loan Inquiry window.

2.2.4.1.2. Loan Detail

For non-HECM Assigned loans, the **Loan Detail** tab provides information related to loan status, loan type, loan amounts, interest rates, important dates and additional information. The **Loan Detail** tab provides authorized users the ability to make changes to loan detail data.

2.2.4.2. HECM Assigned Loans

2.2.4.2.1. Loan Summary

The requirements for the **Loan Detail** tab for HECM Assigned loans are significantly different from those discussed above. The information provided in this tab includes:

- Loan payment information
- Rates
- Dates
- Claim payment information

⁴ Users are assigned group-based permissions, limiting access to only what is required for a particular job function.

- Loan balance
- Net principal limit
- Set aside balance
- Escrow balance

The **Loan Detail** tab for HECM Assigned loans provides authorized users the ability to make changes to the data within this tab.

2.2.4.2.2. Loan Balance Transactions

The **Loan Balance Transaction** tab for HECM Assigned loans provides an interface through which transactions can be viewed in the system. Additionally, users with the requisite authorization level have the ability to add new transactions in the system.

2.2.4.2.3. Disbursements

The **Disbursements** tab provides the ability to initiate payment for various transactions related to servicing the HECM Assigned portfolio. Users with the requisite permissions to initiate a transaction can open the **Pay to Selection** window by clicking the **New** button. The **New Disbursement** window is opened after the data has been completed in the **Pay to Selection**. An authorized user may open the **Edit Disbursement** window if the disbursement (either check or ACH) has neither been voided nor printed. After the disbursement has been made, the **Edit Disbursement** window can only be opened in a read-only mode.

2.2.4.2.4. Property Tax

The **Property Tax** tab displays the status of tax obligations related to a loan. Data related to property taxes is provided by the FARETS system.

2.2.4.2.5. ACH Information

The **ACH Information** tab provides authorized users the ability to identify whether the borrower receives a check or an ACH transfer and, if applicable, the borrower's bank information details. To ensure the accuracy of ACH transfers, bank routing numbers are held in the **SMART** database; only valid routing numbers may be entered for a borrower. Furthermore, a confirmation message is displayed that identifies the bank name by the routing number.

2.2.4.2.6. Payoff

The **Payoff** tab provides pertinent information regarding the loan balance. This tab also provides choices related to the mechanics of paying off a loan, such as:

- Setting the payoff date
- Issuing a payoff letter
- Completing a payoff worksheet
- Entering the payoff transaction

2.2.4.2.7. Monthly Statements

The **Monthly Statements** tab provides users with the ability to view and print all statements for a particular loan.

2.2.4.2.8. Set Aside and Escrow Transactions

The **Set Aside and Escrow Transactions** tab allows for authorized users to view, add and edit transactions in a borrower's set aside account, for such items as for repairs and tax escrow.

2.2.4.3. Common Functions

2.2.4.3.1. Loan Filing

The **Loan Filing** tab is the same for both Non-HECM Assigned and HECM Assigned loans. It contains general information related to the loan filing such as the prior servicer and data pertaining to the physical file record. The **Loan Filing** tab authorized users the ability to make changes to the data within this tab.

2.2.4.3.2. Loan Recording

The **Loan Recording** tab is the same for all loan types in the system and captures information related to that which is required by the applicable land records office. The **Loan Recording** tab provides authorized users the ability to make changes to the data within this tab.

| Loan Recording Information | | | |
|----------------------------|------------------------------|---------------------|------|
| Book # | Release Prepared Date | History | Edit |
| Page # | Origination Date: 05/09/2007 | Prepared By: | |
| Instrument # | Loan Recorded Date | Original Trustee: | |
| Payoff Date | Mortgage Amount: \$40,500.00 | Substitute Trustee: | |
| Authorized Person | | Witness1: | |
| | | Witness2: | |
| | | | |
| | | | |

Figure 13. The Loan Recording Tab

2.2.4.3.3. Borrowers

The **Borrowers** tab is the same for all loan types in the system and contains vital information related to the borrower or borrowers. The **Loan Recording** tab authorized users the ability to make changes to the data within this tab.

Borrower Information:
 First Name: MAX O, SSN: 827-36-5590
 Last Name: ROMERO, Birthdate: 8/29/1993
 Home Phone: () -, Work Phone: () -
 Marital Status:
Borrower Address:
 Address1: 9493 E PLACITA ELEMENTAL
 Address2:
 City: TUCSON, State: AZ, Zip: 85747-
 Country:
Co-borrower Information:
 First Name: , SSN: - -
 Last Name: , Birthdate:
 Phone: () -
Mailing Address:
 Mail To Name: MAX O ROMERO
 Address1: 9493 E PLACITA ELEMENTAL
 Address2:
 Address3: TUCSON AZ 85747-
 Buttons: New, View/Edit, Print

Figure 14. The Borrowers Tab

2.2.4.3.4. Property Inspection

The **Property Inspection** tab allows input of data related to property inspections and appraisals. Users may enter a new property inspection record by clicking the **New** button or edit an existing record by selecting the desired row and clicking the **View/Edit** button or double clicking the row.

| Prop. Story | Parcel ID | Property Address | Owner Occupied | Collected Tax | Escrow | Collected Insur | Escrow | Last Inspect Date | Last Appraisal Date | Apprais |
|-------------|-----------|--------------------------------------|----------------|---------------|--------|-----------------|--------|-------------------|---------------------|---------|
| 400094 | | 9493 E PLACITA ELEMENTAL, TUCSON, AZ | | | | | | | | |

Buttons: New, View/Edit, Print

Figure 15. Property Inspection tab

The **Property Detail** window opens when the **View/Edit** button is clicked or when a user double-clicks a row in the data window on the **Property Inspection** tab. The **Property Detail** window has two tabs, **Property Detail** and **Pictures**.

The **Property Detail** window provides an interface to input a variety of information related to land records recording, appraisals, escrow and inspections. Additionally when a user wishes to edit an existing record, the **Property Detail** tab provides a link to MapQuest.com with the **Map It!** link on the bottom left hand corner of the **Property Detail** window.

The **Map It!** link, **Print Preview** button, and **Pictures** tab are not available for a new record.

Figure 16. Property Detail Window

The **Pictures** tab provides the ability to add, edit, view and delete photos to the particular loan file. The data window on the **Pictures** tab provides the individual identification number associated with the particular image as well as a description, active check box indicator, and creation information.

The **Property Picture Entry** window opens when either **New** or **Edit** buttons are clicked. The **Property Picture Entry** window provides the interface through which data specific to an individual image is entered. Additionally a user can detach an image when it is not applicable to a loan. Clicking the **View** button on the **Property Detail** window, **Pictures** tab opens the **Property Picture** window.

Clicking the **Preview** button opens the **Choose Picture** window.

The **Property Picture** window opens when the **Open** button on the **Choose Picture** window is clicked. The **Property Picture** window provides a variety of zoom levels as well as **Print** and **Close** buttons.

Clicking the **Detach** button on the **Property Picture Entry** window displays a dialog requiring the user to confirm the action to permanently detach the picture from the loan record.

An inspection report is available from the **Property Detail** window, by clicking the **Print Preview** button. The **Inspection Report** window provides a variety of zoom levels as well as **Print** and **Close** buttons.

Figure 17. Inspection Report

2.2.4.3.5. Documents

The **Documents** tab is used to attach and detach documents relevant to a particular mortgage. The **Documents** tab authorized users the ability to make changes to the data within this tab.

2.2.4.3.6. Notes

The **Loan Inquiry** page has a tab for **Notes** for all loan types.

2.2.4.3.7. Mortgage Release

The **Loan Inquiry** page has a read-only data window displaying mortgage release activity for all loan types.

2.2.4.3.8. Exceptions

The **Exceptions** tab allows a user to view the exceptions, such as if a borrower is deceased, the loan is in foreclosure or the insurance has expired, to name a few. A new exception can be added or edited for authorized users.

2.2.4.3.9. Servicing

The **Servicing** tab provides a read-only view of the servicing steps that have taken place for a particular loan. Moreover, the Servicing tab provides filter logic to limit the view to only a certain servicing activity.

2.2.4.3.10. Foreclosure

The **Foreclosure** tab provides a read-only view of foreclosure activity, if any, that has occurred for a particular loan.

2.2.4.3.11. Bankruptcy

The **Bankruptcy** tab provides a read-only view of the bankruptcy activity, if any, that has occurred for a particular loan.

2.2.4.3.12. Notes

Users who perform servicing functions as well as HUD users are able to enter notes attached to a particular loan in the system.

2.2.5. Bankruptcy Module

The **Bankruptcy** module provides for servicing loan in a Chapter 7 or Chapter 13 bankruptcy status. Upon opening the **Bankruptcy** module, a second level tool bar specific to bankruptcies displays with the **Bankruptcy Search** window

2.2.5.1. Bankruptcy Steps

This tab identifies the steps taken in the bankruptcy procedure.

2.2.5.2. Bankruptcy Management

This tab is used to identify all information needed to manage the bankruptcy action.

2.2.5.3. Borrowers

Authorized users can input the names of the borrowers affected by the bankruptcy action.

2.2.5.4. Notes

Authorized users can enter notes relevant to the bankruptcy action up to, but not past, its conclusion.

2.2.6. Foreclosure Module

The **Foreclosure** module manages loan records in the foreclosure process. Provide a timeline of the required foreclosure steps and track the scheduled foreclosure activity against the actual dates for the completed foreclosure activity.

2.2.7. Mortgage Release Module

A critical portion of the mortgage servicing process is the release, where the mortgagor is relieved of his/her obligation to the mortgagee. A release is initiated upon payoff of the outstanding loan amount or upon receipt of notice of the recordation of a deed in lieu of foreclosure. Mortgage releases are sent to the respective state or local entity no later than five business days for all loans except ACA compliance, and no later than three days for ACA compliance loans, from the request for release or receipt of payoff (see Section 15, Performance Requirement 1 of the Contract).

The **Mortgage Release Search** window has two tabs, **Mortgage Release Search**, described below and **Notes**. The **Mortgage Release Search** tab is used to find open loans which can be released or loans which are already in the release process. A release is initiated by opening a loan in the open status. By doing so, the **Loan Release Initiation** window is displayed, with a default initiation date as the current date, and which cannot fall on a weekend, and the **Deed in Lieu** check box. The user is directed to the **Mortgage Release Activity** window after clicking the OK button on the **Loan Release Initiation** window.

The top portion of the **Mortgage Release Activity** window displays **Loan, Borrower & Property**, and **Additional Loan Information**. A selection of tabs provide an interface through which data can be entered, edited and viewed for releases.

2.2.7.1. Release Activity

The **Release Activity** tab provides the steps and scheduled timeframe for completing the release. This tab allows the user to enter the actual date the step was completed as well as add additional steps, such as when mortgage documentation is missing. Rēkon provides the actual completion date.

- Borrowers
- Loan Detail
- Loan Filing
- Loan Summary (Non-HECM Assigned)
- Property Inspection
- Transactions
- Documents
- Loan Recording Information
- Checks—The Checks tab displays the history of checks related to a certain loan. The data provided on this tab is simply read-only. The entry of checks is discussed in detail in Section 4.2.7.3 below.

- Notes
- Exceptions

22.7.2. Rēkon

Rēkon is a system provided by Rēkon Technologies which facilitates the release process by providing forms and reference data required by local land records offices and/or other respective authorities. When a release is initiated, a download process, which runs every fifteen minutes, checks for new releases. Upon finding the new release, it extracts the relevant data, and allows the output file created by this process to be uploaded into Rēkon. The process sends confirmation that a loan has properly loaded in Rēkon by sending a trigger based receipt record back to **SMART**.

The Rēkon database directly updates **SMART** upon the population of the **Actual Completion Date** for any release step with a counterpart in **SMART**.

22.7.3. Checks

The **Check Search** window, available from the menu bar, allows authorized users to search for all checks. Typically, such checks are payable to the respective land records office. Double-clicking a check record displays a read-only window providing the details of a particular transaction.

Financial Management group users can print checks with the appropriate button on the tool bar. A **Print Checks** provides the ability to print a queue of checks at one time. Upon initiating the check printing, the **Express Check Summary** window is opened displaying checks to be printed. Also, print options are available, **Print Preview** and **Print Check Summary**.

The **Print Preview** window provides an image of the check and various printing, saving and viewing options. The **Print Check Summary** gives a list of all the checks printed from the immediate queue. This summary can also be accessed through the **Print Preview** option. Finally, the search must be run with a selection in the **Disbursement Type** drop-down list box in order to print checks.

2.2.8. Servicing Module

The **Servicing** module assigns mortgage servicing templates to individual loans, track the status of each servicing template and generate the corresponding forms and letters.

Note: Once a loan has been selected, **SMART** displays the relevant data and a button in the module bar that permits the user to directly open the loan details in the **Loan Inquiry** module.

22.8.1. Servicing History

The data in this window identifies all servicing activities associated with the mortgage.

22.8.2. Servicing Steps

The data in this tab identify the steps take for the activity selected in the **Servicing History** window and are auto-populated by **SMART**.

2.2.8.3. Servicing Management

The data in this tab identify the management information relevant to the activity selected in the **Servicing History** window and are auto-populated by **SMART**.

2.2.8.4. Notes

Authorized users can enter, view, or modify notes for all servicing details of the mortgage loan.

2.2.8.5. Maintenance Module

The **Maintenance** module sets user default preferences, change password and add new table entries.

2.2.9. Customer Service Module

The **Customer Service** module provides an intuitive user interface for tracking and controlling service calls, as well as automate and support Loss Mitigation for HUD loans.

2.3. Current Methods and Procedures

Considering that the **SMART** system is currently in production and the purpose of this document is to capture the baseline functionality, Section 4.0 below should adequately address current methods and procedures.

2.3.1. PowerBuilder

SMART end users primarily see the functionality of the **SMART** system through the PowerBuilder front end application (PB Front End). The PB Front End provides a variety of windows, menus, drop-down lists, and other related objects which allow system users to perform the tasks required to service the underlying HUD mortgage portfolio.

The PowerBuilder source code is divided into library files which tend to represent a module of functionality. The library files are divided into two categories, ones that are specific to **SMART** and those which belong to the PowerBuilder Foundation Extension (PFE) and PowerBuilder Foundation Class (PFC) libraries. The PFE and PFC libraries are provided by Sybase, the proprietor of PowerBuilder and are used as base classes upon which core functionality and attributes can be inherited. The PFE and PFC are instrumental in providing the functionality that allows PowerBuilder to be a Rapid Application Development (RAD) tool. The PB Front End is divided into the following modules:

- Bankruptcy
- Customer Service
- Foreclosure
- Loan Detail
- Login/System Security
- Mortgage Release
- Reports
- Servicing

- System Maintenance

2.3.2. Month-End Processing

The month-end process is driven by an executable file and a set of PowerBuilder libraries. Moreover, the underlying code for the month end process is built upon the PFE and PFC libraries. This process is also heavily dependent upon database objects. The month end process is executed by a scheduled job within the Microsoft SQL Server. Specifically, the month end process is driven by a Data Transformation Service (DTS), which is a component of Microsoft SQL Server.

2.3.3. Equipment Being Used

Existing equipment used include, generally: server, workstations, scanner, and other basic infrastructure components. **SMART** does not require any specialized or custom hardware or equipment.

The **SMART** MGC environment network architecture uses Cisco networking equipment. The Server operating system environments maintained include Windows XP®, Windows Server 2003®. The primary development language/tool is PowerBuilder version 10.5 and the Database Management System (DBMS) is MS SQL Server 2000®.

Users may access **SMART** over a local area network (LAN) or remotely through a Citrix application delivery infrastructure via an internet browser. Both the network servers and local user machines all are equipped with virus scanning software with regular virus definition updates.

Communications includes VPN tunnels to HUD using a SonicWall PRO 3060 as a router and two T1 lines that serve as a communication conduit.

The architecture also relies upon a number of redundant components, such as network hardware, power supplies, hard disk Redundant Array of Independent Disks (RAID) 5⁵ technology, load balancing, and telecommunications circuits that maximize availability.

All PCs are equipped with virus protection software that is regularly updated. The Gateway Anti-Virus, Anti-Spying & Intrusion Prevention Services software is included in the SonicOS Enhanced software purchased for protection. PCs have a standard configuration of programs. User PCs include Dell Dimension 4700, Dell Precision 490, and Dell OptiPlex 320 and 745.

Further details regarding the equipment used are described in Section 6.0 of this FRD.

⁵ RAID 5 provides striped disks with parity allowing for three or more disks work together to prevent data loss in the event of a failure of one disk.

2.3.4. Input and Output

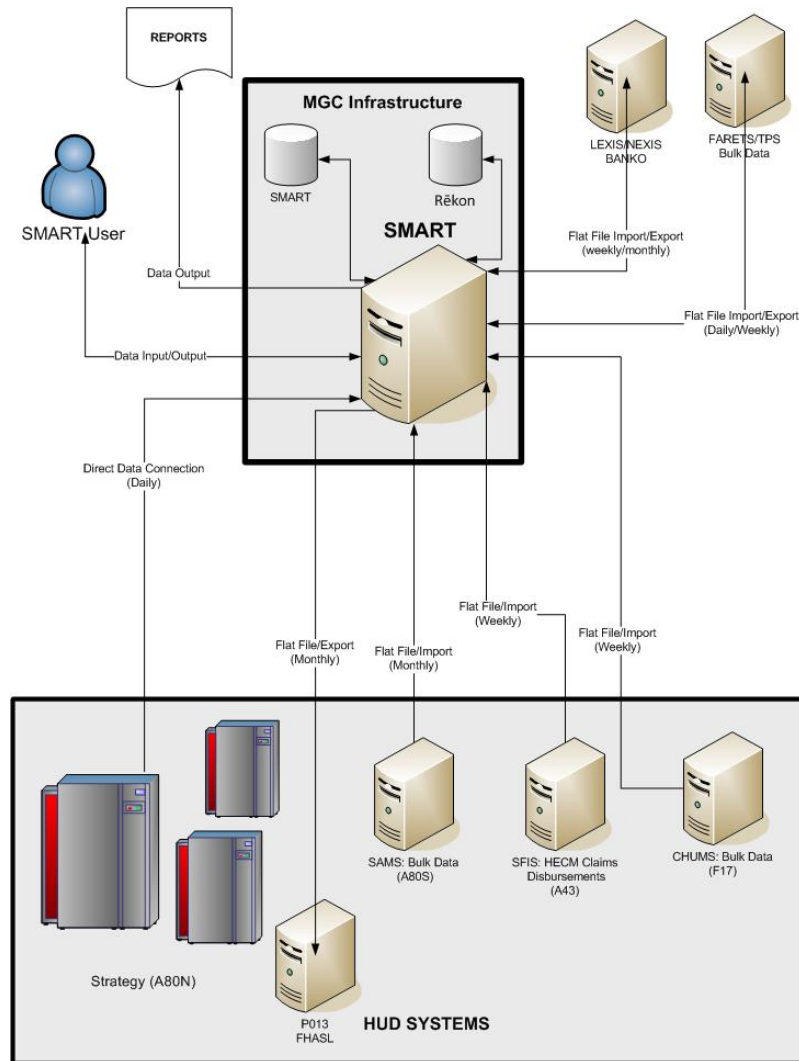


Figure 18. SMART System Interfaces

2.3.4.1. Input

2.3.4.1.1. Strategy

SMART receives data from the Strategy system, which includes Title II Secretary Held First and Second Mortgages on a daily basis. Data is only received from the Strategy system to refresh the data in **SMART**, but data does not flow from **SMART** back to **Strategy**.

Strategy is the HUD system of record for the Assignment Program loans and Partial Claim (PC) Subordinate loans. Prior to the operation of the Strategy system, HUD used the Single Family Mortgage Notes (SFMNS or F60P or F60S) system for servicing the Secretary-Held loan portfolio. SFMNS recorded, maintained, and monitored complete commercial mortgage servicing activities for Secretary-Held mortgages. It also contained the historical data for all assigned mortgages prior to 1999.

Strategy is comprised of two separate databases, Database A (DAT-A) and Database B (DAT-B). Database A consists of the Assignment Program loans, and Database B consists of the Partial Claim Subordinate loans.

2.3.4.1.2. Rēkon

Data related to the mortgage release process, generated in the Rēkon system, discussed above in Section 4.2.7.2, is imported into the **SMART** system. Additionally, data for checks created in Rēkon is directly imported into **SMART** by way of a trigger that moves the data between the two respective databases.

2.3.4.1.3. Wachovia Positive Pay

The Wachovia Positive Pay Subsystem (WPPS) is used to assist with the periodic bank reconciliation of the accounts associated with **SMART**. Specifically these accounts pertain to the Home Equity Conversion Mortgage portfolio disbursements, loan release transactions for all portfolios and certain disbursements related to loans in the HUD Strategy system.

2.3.4.1.4. Other Inputs

Users input data manually into the **SMART** system by creating individual records through a series of Wizards and general input screens (of manual entry screens).

Bulk data can be imported into **SMART** from several HUD systems. The following is a list of HUD Applications from which **SMART** obtains additional data:

- Computerized Homes Underwriting Management (CHUMS)
- Home Equity Conversion Mortgage (HECM) Claims Disbursements—data from Single Family Insurance System (A43)
- Single Family Acquired Asset Management System (SAMS)

Data is also imported into **SMART** from sources listed below:

- First American Real Estate Tax Service (FARETS)—Tax Payment Service (TPS) data, i.e. real estate property tax due dates, delinquencies, and penalties
- LexisNexis/BANKO—provides confirmation of a homeowner's bankruptcy status
- Strategy system—**SMART** receives loan information from the HUD Strategy system.

2.3.4.2. Output

2.3.4.2.1. Reports

2.3.4.2.1.1. Foreclosure

- Foreclosure Activity Listing

2.3.4.2.1.2. Monthly/Weekly reports

- Automated Month-end Reporting
- Details For Expired Mortgages Not Sent For Recording
- Details For Subordinations Carried Over (Working On)
- HECM Insured—Monthly Activity Invoice Detail Report
- HUD Monthly Director Report

- HUD Monthly Director Report—Collection Summary
- HUD Monthly Director Report—Loan Inventory Summary
- HUD Monthly Director Report—Summary (Ending UPB)
- List of Open Loans (At Month End)
- Loans Not Processed in Month End
- Monthly Claims Paid Report
- Monthly Counts
- Mortgage Monthly Statements
- Weekly Counts

2.3.4.2.1.3. Servicing/Release reports

- Audit Log by User
- Audit Tracking Report
- Audit Tracking Report By User
- Calculation Log
- Closed Loan Files
- Congressional Report
- Disbursement Detail
- Disbursement Summary
- Export Banko File
- Export Chase Check Reconciliation
- Export Files With Missing Documentation for DCPS
- Files With Missing Documentation
- HECM Complaint Report
- Loans Released With Balances
- Missing Loan Document Detail
- Needs Custodial Care Report
- Release Activity Steps By User
- Title Approval Denied Report
- TPS Data Import Details
- Transaction Detail Report

2.3.4.2.1.4. Customer Service

- Comprehensive Report
- Controlled Correspondence Report
- CSC/HUD Closed Ticket Status
- HUD Specialist Closed Ticket Status
- HUD Specialist Open Ticket Status
- HUD Specialist Tickets by Call Disposition

- HUD Specialist Tickets by Region
- Lender Specific Report
- Performance Summary
- Reason for Calling Report
- Tickets by Call Disposition
- Trend Report

2.3.4.2.2. Rēkon

Data related to the initiation of releases from **SMART** is exported to the Rēkon system, discussed in detail above.

2.3.4.2.3. Other System Interfaces

SMART exports data to the following systems:

- HUD Federal Housing Administration Subsidiary Ledger (FHASL)—Data is transmitted to the General Ledger Division of HUD, Federal Housing Administration Subsidiary Ledger (FHASL). This component is a standalone subsystem with the **SMART** framework
- Lexis/Nexis BANKO—a public records database for bankruptcies

2.3.5. Provisions in the Existing System Design

The **SMART** system is managed and maintained by MGC at their Lanham, MD headquarters. Production and disaster recovery instances are located in the Tulsa, OK and the Ongoing Operations, LLC (Ongoing) datacenter in Hagerstown, MD, respectively. The MGC sites in Lanham and Tulsa along with Ongoing are connected through a network mesh, comprised of Blue Ridge⁶ devices and T1 lines. A set of Virtual Private Network (VPN) connections exist between the MGC network and HUD systems. Primarily the VPN connections support access to the Strategy system.

- A valid contract exists with Ongoing Operations, LLC, a data recovery center that CLS-MGC designates as the Disaster Recovery Center in Hagerstown, MD, as the alternate operating facility
- CLS-MGC uses the alternate site building in Hagerstown, MD and IT resources to recover **SMART** functionality during an emergency that prevents access to the original facility
- The designated computer system at the alternate site in Hagerstown is configured to begin processing the **SMART** information

The alternate site in Hagerstown is used to continue the **SMART** recovery and processing throughout the period of disruption, until the return to normal operations.

In preparation for disruptions of the **SMART** application that are classified as minor events, CLS-MGC provides a redundant T-1 line. This prevents excess expenditures for minor events that could prevent HUD users from accessing the **SMART** system and Ongoing from the daily backups.

⁶ Blue Ridge Networks, Inc. provides the network devices necessary to create a network mesh between all of the locations on the MGC network. This mesh provided by Ongoing is a Multi-Protocol Label Switching (MPLS) system.

2.3.6. Deficiencies

2.3.6.1. Check Search

The business rules and logic driving Check Searches should be restructured to more accurately and efficiently reflect the various needs and functions associated with check searching.

3.0 PROPOSED METHODS AND PROCEDURES

3.0 PROPOSED METHODS AND PROCEDURES

3.1. Summary

This document provides the baseline requirement definition to the **SMART** system at the point when MGC became the service provider to HUD. Therefore, this document does not describe proposed methods and procedures, but identifies the methods and procedures currently used with the **SMART** system.

Subsequent development projects is detailed in addenda to this baseline document.

4.0 DETAILED CHARACTERISTICS

4.0 DETAILED CHARACTERISTICS

4.1. Specific Performance Requirements

SMART:

- Is functional and fully operational during normal business hours, defined in Section 7.1 of the Contract, as between 7:00 and 19:00 Central Time
- Continues to provide convenient, user-friendly interfaces that minimizes the need for end user and administrator training
- Provides user menu options and navigation that reflect users' expectations and incorporate appropriate HUD terminology, regulations, and requirements
- Continues to provide tools to manage and control various aspects of the HUD mortgage portfolio according to user privileges
- Accommodates multiple independent users simultaneously without degradation of performance
- Allows for quick and efficient expansion and alteration a system functionality requirements change and grow
- Performs in accord with established baseline functionality
- Expands customer service support for loans serviced by MGC and ensures such calls are answered in a timely manner
- Sends mortgage releases to appropriate state or local entities no later than five business days for all loans except ACA compliance and no later than three days for ACA compliance loans from the request for release or receipt of payoff

4.1.1. Accuracy and Validity

The following validations and edits are implemented:

| Validation Type | Editable Field | Edit Type |
|-----------------------|----------------|-------------------------|
| Case Data | Case Number | Numeric Edit Mask |
| | ADP Code | Alphanumeric Edit Mask |
| | Fund Code | Alphanumeric Edit Mask |
| Names | Borrower | Alphanumeric Edit Mask |
| | Co-borrower | Alphanumeric Edit Mask |
| Address | Address | Alphanumeric Edit Mask |
| | House# | Numeric Edit Mask |
| Pre-direction | Street Name | Alphanumeric Edit Mask |
| | Street Type | Alpha Numeric Edit Mask |
| Post-direction | City Name | Alphanumeric Edit Mast |
| | State Code | Drop-down menu |
| | Zip Code | Numeric Edit Mast |

| Validation Type | Editable Field | Edit Type |
|------------------------------|-----------------------------|--------------------------|
| Dates | First Payment Date | Calendar |
| | Endorsement Date | Calendar |
| | Maturity Date | Calendar |
| | Date Received | Calendar |
| | Expiration Date | Calendar |
| | Closing Date | Calendar |
| | File Entered Date | Calendar |
| Totals/Amounts/Values | Mortgage Amount | Edit Mast \$#,##0.00 |
| | Appraised Value | Edit Mast \$#,##0.00 |
| | Write-Down Amounts | Edit Mast \$#,##0.00 |
| | Total Principal Balance | Edit Mast \$#,##0.00 |
| | Total Principal Balance | Edit Mast \$#,##0.00 |
| | Unpaid Principal Balance | Edit Mast \$#,##0.00 |
| Payments | Principal Paid Year-to-Date | Edit Mast \$#,##0.00 |
| | Original Principal Balance | Edit Mast \$#,##0.00 |
| | MIP | Edit Mast \$#,##0.00 |
| Contact Data | Phone Numbers | Edit Mask (###) ###-#### |
| | Fax Numbers | Edit Mask (###) ###-#### |
| Loan Data | Loan Type | Drop-down menu |
| | Lender | Drop-down menu |
| | Prior Servicer Name | Drop-down menu |
| Codes | Transaction Codes | Alphanumeric Edit Mask |
| | Action Codes | Drop-down menu |

4.1.2. Timing

Describe the online and/or batch timing requirements to be imposed on the system. Consider the following requirements:

- Response time from receipt of input data to availability of system products
- Response time to queries and updates
- Sequential relationship of functions
- Priorities imposed by types of input and changes in modes of operation
- Any deviations from specified response times for peak load periods or contingency operations, as applicable

4.1.3. Capacity Limits

The **SMART** system is generally scalable to handle additional capacity as needed.

4.2. Functional Area System Functions

4.2.1. Loan Inquiry Module

The Loan Search window consists of two tabs, Loan Search and Notes Search. Loan records can be retrieved through various combinations of search criteria. The following is a list of search criteria options.

4.2.1.1. Search tabs

4.2.1.1.1. Loan Search tab

The screenshot shows the 'Loan Search' window with a 'Loan Criteria' tab selected. The window contains several input fields and dropdown menus for searching loans. The fields are arranged in a grid-like format. The 'Loan Key' field is highlighted in red. The 'Loan Create Dt' and 'File Rec'd Date' fields have date range selectors (>=, <=). The 'Property State', 'Property Address', and 'Property Zip Code' fields are also present.

Figure 19. Loan Search Criteria fields

| Field | Validation/Edit Type |
|--------------------|------------------------|
| Loan Key | Alphanumeric Edit Mask |
| Loan Number | Alphanumeric Edit Mask |
| Loan Status | Drop-down menu |
| Loan Status1 | Drop-down menu |
| FHA Case Number | Alphanumeric Edit Mask |
| Loan Program | Drop-down menu |
| Label Printed | Drop-down menu |
| Payment Plan | Drop-down menu |
| Loan Created Date | Calendar |
| File Received Date | Calendar |
| Borrower LName | Alphanumeric Edit Mask |
| Property State | Drop-down menu |
| Property Address | Alphanumeric Edit Mask |
| Property Zip Code | Alphanumeric Edit Mask |

4.2.1.1.2. Notes Search tab

Figure 20. Notes Search Criteria fields

| Field | Validation/Edit Type |
|-------------------|------------------------|
| Loan Skey | Alphanumeric Edit Mask |
| FHA Case Number | Alphanumeric Edit Mask |
| Loan Program | Drop-down menu |
| Note Type | Drop-down menu |
| Create User ID | Drop-down menu |
| Note Text | Alphanumeric Edit Mask |
| Notes Create Date | Calendar |
| High Importance | Check box |
| Group Name | Drop-down menu |

4.2.1.2. Add Loan

New loan records can be added to **SMART** using the Loan Acquisition Wizard in the Loan Module. Users are prompted to enter General Loan Information, Filing Information, Recording Information, Borrower Information, Borrower Address and Property Detail Information.

Note: For HECM-Assigned Loan Records, data for Principal Limit Calculations, Dates, Rates and Payments, and Loan Balance information are also required.

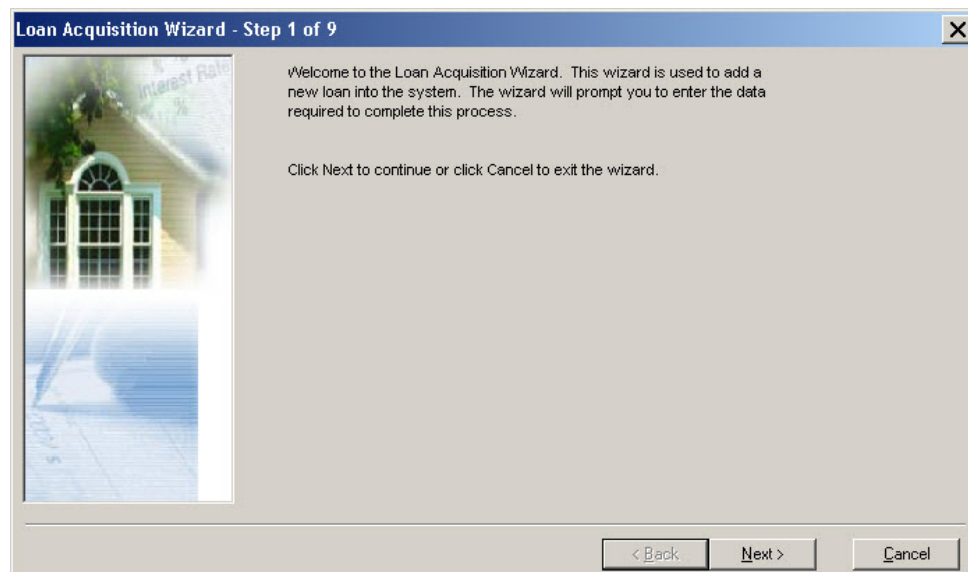


Figure 21. The Loan Wizard

4.2.1.3. Loan Inquiry

Opening a loan record from the search results navigates the user to the Loan Inquiry (Detail) window. The loan inquiry window consists of multiple tabs that provide detailed Loan information. The selection of tabs displayed is dynamic and varies depending on the Loan program of the selected loan.

The basic loan-level information is displayed for reference only in the loan header field. These data include:

- Loan Information
- Borrower & Property Information
- Additional Information

Below the basic header information are the different tabs containing the appropriate data for that category.

| | | | |
|--|-------------------------------|------------------------------------|--------------------------|
| Loan Information | | Additional Loan Information | |
| Loan No: | 5413406630 | Loan Program: | HECM - Assigned |
| FHA Case #: | 5413406630 | Fannie Mae Loan #: | 6000001346 |
| Borrower & Property Information | | Additional Loan Information | |
| Borrower(s): | Gertrude M. Cornish | Next Payment Due Date: | |
| Borrower Addr: | 2304 Kent Street | Contractual Due Date: | |
| City: | Richmond | Forbearance Agreement: | <input type="checkbox"/> |
| State: | VA | Loan Key: | 64876 |
| Zip: | - | SSN: | 223-10-2568 |
| Prop Address: | 2304 Kent Street Richmond, VA | Branch Code: | |
| | | Loan Status: | CLOSED |

Figure 22. Loan Header data (HECM-Assigned loan)

The window contains tabs to the pertinent data in other **SMART** modules, such as foreclosure, bankruptcy and the mortgage release process. The data displayed in each tab is at the loan level or the transaction level, as required.

4.2.1.4. Edit Loan Tabs: Non HECM-Assigned Loans

4.2.1.4.1. Loan Summary tab

The Loan Summary tab provides the ability to view or edit loan summary information. The tab is not displayed for all loans depending on the Loan Program of the selected loan.

| Current Balances | Year To Date Amount Paid | Monthly Constants |
|---------------------|--------------------------|--------------------------------|
| Orig Principal Amt: | No Payments Delinq: | Monthly Prin Amt: \$0.00 |
| Unpaid Prin Bal: | Pay Type Code: | Monthly Tax/Escrow Amt: \$0.00 |
| Tax Escrow Bal: | Pay Application Code: | Monthly Farell2m Amt: \$0.00 |
| Farell2m Bal: | Payment Status: | Monthly Serv Fee Amt: \$0.00 |
| Insur Damage Bal: | Prin Paid Ytd: | Monthly Int Tax Amt: \$0.00 |
| Serv Fee Bal: | Int Paid Ytd: | Totals: \$0.00 |
| Int Tax Bal: | Late Charge Paid Ytd: | |
| Susp Escrow Bal: | Real Est Tax Paid Ytd: | |
| Late Charge Bal: | Times Late Ytd: | |
| Curr Loan Bal: | Times Late Total: | |
| Credit Line Bal: | Claim Pay Date: | |
| | Payoff Date: | |

Figure 23. Loan Summary tab (non HECM-Assigned loan)

The editable fields are:

| Tab | Column | Field | Validation/Edit Type |
|--------------|--------------------------|------------------------|------------------------|
| Loan Summary | Current Balances | Orig Principal Bal | Calculator |
| | | Unpaid Prin. Bal | Calculator |
| | | Tax Escrow Bal | Calculator |
| | | Farrell2m Bal | Calculator |
| | | Insur Damage Bal | Calculator |
| | | Serv Fee Bal | Calculator |
| | | Int Tax Bal | Calculator |
| | | Susp Escrow Bal | Calculator |
| | | Late Charge Bal | Calculator |
| | | Curr Loan Bal | Calculator |
| | | Credit Line Bal | Calculator |
| | Year to Date Amount Paid | No Payments Deling | Calculator |
| | | Pay Type Code | Alphanumeric Edit Mask |
| | | Pay Application Code | Alphanumeric Edit Mask |
| | | Payment Status | Drop-down menu |
| | | Prin Paid Ytd | Calculator |
| | | Int Paid Ytd | Calculator |
| | | Late Charge Paid Ytd | Calculator |
| | | Real Est Tax Paid Ytd | Calculator |
| | | Times Late Ytd | Calculator |
| | | Times Late Total | Calculator |
| | | Claim Pay Date | Calendar |
| | | Payoff Date | Calendar |
| | Monthly Constants | Monthly Prin | Calculator |
| | | Monthly Tax Escrow Amt | Calculator |
| | | Monthly Farell2m Amt | Calculator |
| | | Monthly Serv Fee Amt | Calculator |
| | | Monthly Int Tax Amt | Calculator |

4.2.1.4.2. Loan Detail tab

The Loan Detail tab provides the user the ability to view, edit, or add loan detail information.

The screenshot shows a web-based form titled 'Loan Detail'. It is organized into four columns:

- Loan Status & Type:** Fields include Officer Code, Loan Type, FHA # 1st Mtg, Loan Term, Loan Status (displaying 'CLOSED - Closed Loans'), Loan Status 1 (displaying 'OT'), Loan Status 2, Loan Purpose Code, Loan Class Code, Contract Type Code, Program Type, and Last CO Response.
- Amount & Rate:** Fields include Curr Prin Limit, Exp Rate, Current NPL, Repair SA, Max Claim Amt, First Year SA, Serv Fee SA, Orig Credit Line, Prin Limit At Closing, Mip, and Curr Int Rate.
- Loan Dates:** Fields include Signed Date, Funded Date, MIC Date, Assmt Accepted, Assmt Recorded, Claim Paid, Title Approval, At Contractor On, Arm Change Date, Orig Loan Date, Status Date, Maturity Date, Occ. Cert Sent, and Due Date Deling No.
- Additional Loan Information:** Fields include Hold Code 1, Hold Code 2, Hold Code 3, Accrual Method, Assess Late Charge, Collect Tax Escrow (radio buttons for Yes/No), Custodial, Vacancy Status, Vacancy Date, Section of the Act, and Print Statements (checkbox).

An 'Edit' button is located to the right of the 'Additional Loan Information' section.

Figure 24. Loan Detail tab (non HECM-Assigned loan)

The editable fields are:

| Tab | Column | Field | Validation/Edit Type |
|-------------|---------------------|---------------------------|-----------------------------|
| Loan Detail | General Information | Loan # | Alphanumeric Edit Mask |
| | | FHA Case # | Alphanumeric Edit Mask |
| | | Next Payment Dt | Calendar |
| | | Disbursement Dt | Calendar |
| | | Contractual Due Dt | Calendar |
| | | Principal Amt | Numeric Edit Mask |
| | | Purchase Price | Numeric Edit Mask |
| | | Forbearance Agmt | Check box |
| | | Branch Code | Numeric Edit Mask (##) |
| | | GI Matrix | Alphanumeric Edit Mask |
| | | GI Code | Numeric Edit Mask (#) |
| | Loan Status & Type | Print Statements | Check box |
| | | Loan Type | Drop-down menu |
| | | FHA # 1 st Mtg | Alphanumeric Edit Mask |
| | | Loan Purpose Code | Alphanumeric Edit Mask |
| | | Contract Type Code | Alphanumeric Edit Mask |
| | | Program Type | Alphanumeric Edit Mask |
| | | Loan Status | Drop-down menu |
| | | Loan Status 1 | Drop-down menu |
| | | Loan Status 2 | Alphanumeric Edit Mask (##) |

| Tab | Column | Field | Validation/Edit Type |
|-----------------------------|------------------------------------|--------------------|-----------------------------|
| Additional Loan Information | Additional Loan Information | Class Cd | Alphanumeric Edit Mask (##) |
| | | Loan Term (yymm) | Numeric Edit Mask (####) |
| | | Officer Code | Alphanumeric Edit Mask |
| | | Last CO Response | Calendar |
| | | Signed Date | Calendar |
| | | Funded Date | Calendar |
| | | MIC Date | Calendar |
| | | Assmt Accepted | Alphanumeric Edit Mask |
| | | Assmt Recorded | Alphanumeric Edit Mask |
| | | Title Approval | Alphanumeric Edit Mask |
| | | At Contractor On | Alphanumeric Edit Mask |
| | | ARM Change Date | Calendar |
| | | Orig Loan Date | Calendar |
| | | Status Date | Calendar |
| | | Maturity Date | Calendar |
| | | Section of the Act | Alphanumeric Edit Mask |
| | | Occ Cert Sent | Alphanumeric Edit Mask |
| | | Due Date Delinq Nc | Calendar |
| | | Vacancy Date | Calendar |
| | | Hold Code 1 | Alphanumeric Edit Mask |
| | | Hold Code 2 | Alphanumeric Edit Mask |
| | | Hold Code 3 | Alphanumeric Edit Mask |
| | | Accrual Method | Alphanumeric Edit Mask |
| | | Assess Late Charge | Alphanumeric Edit Mask |
| | | Collect Tax Escrow | Radio buttons Yes No |
| | | Custodial | Alphanumeric Edit Mask |
| | | Vacancy Status | Alphanumeric Edit Mask |

4.2.1.4.3. Loan Filing tab

The Filing tab provides the ability to view or edit Loan Filing information.

Edit Loan

Loan Filing

Loan Filing Information

Prior Servicer Name: Closing Date: 06/09/2000

Prior Servicer Phone: Expiration Date: 06/09/2003

Project Name: File Entered Date: 04/14/2003

Project #: Notice Rec'd Date:

Project Id: VRS #:

Deed Restriction: ☐ Home Owner Incentive: ☐ Voucher #:

OT Cert (Form 9548): ☒ Sales Contract: ☒ Box #: OT009

Hard File: ☒ HUD Settlement: ☒ File Rec'd Date: 04/14/2003

Label Printed: ☒ Note Doc. Exists: ☐

Mortgage Doc. Exists: ☒ ☒ Officer ☐ Teacher

Audit Information

Created By: systemkg Create Date: 04/14/2003 12:00 AM

Changed By: system Change Date: 06/09/2004 11:31 AM

OK Cancel

Figure 25. Edit Loan Filing window (Non HECM-Assigned loan)

The following fields are editable:

| Tab | Column | Field | Validation/Edit Type |
|-------------|-------------------------|----------------------|----------------------|
| Loan Filing | Loan Filing Information | Prior Servicer Name | Drop-down menu |
| | | Project Name | Drop-down menu |
| | | Deed Restriction | Check box |
| | | Home Owner Incentive | Check box |
| | | OT Cert (Form 9548) | Check box |
| | | Sales Contract | Check box |
| | | Hard File | Check box |
| | | HUD Settlement | Check box |
| | | Label Printed | Check box |
| | | Note Doc. Exists | Check box |
| | | Mortgage Doc. Exists | Check box |
| | | Officer | Radio button |
| | | Teacher | Radio button |
| | | Closing Date | Calendar |
| | | Expiration Date | Calendar |
| | | File Entered Date | Calendar |
| | | Notice Rec'd Date | Calendar |

| Tab | Column | Field | Validation/Edit Type |
|-----|--------|-----------------|------------------------|
| | | VRS # | Alphanumeric Edit Mask |
| | | Voucher # | Alphanumeric Edit Mask |
| | | Box # | Alphanumeric Edit Mask |
| | | File Rec'd Date | Calendar |

4.2.1.4.4. Loan Recording tab

The Loan Recording tab provides the user with the Loan Recording information.

Edit Loan

Loan Recording Information

Book #: 3007 Payoff Date:

Page #: 0412 Origination Date: 06/09/2000

Instrument #: 21981 Release Prepared Date:

Loan Recorded Dt: 06/12/2000 Mortgage Amount: \$58,925.00

Authorized Person:

Notary:

Prepared By:

Original Trustee: DWAYNE LOUK AND ROBERT E RULOFF

Substitute Trustee:

Witness1:

Witness2:

Audit Information

Created By: systemkg Create Date: 04/14/2003 12:00 AM

Changed By: system Change Date: 06/09/2004 11:31 AM

OK Cancel

Figure 26. Edit Loan Recording data (Non HECM-Assigned loan)

This editable fields are:

| Tab | Field | Validation/Edit Type |
|-----------------------------------|-----------------------|------------------------|
| Loan Recording Information | Book # | Alphanumeric Edit Mask |
| | Page # | Alphanumeric Edit Mask |
| | Instrument # | Alphanumeric Edit Mask |
| | Loan Recorded Dt | Calendar |
| | Payoff Date | Calendar |
| | Origination Date | Calendar |
| | Release Prepared Date | Calendar |
| | Mortgage Amount | Calculator |
| | Authorized Person | Drop-down menu |

| | |
|--------------------|----------------|
| Notary | Drop-down menu |
| Prepared By | Drop-down menu |
| Original Trustee | Drop-down menu |
| Substitute Trustee | Drop-down menu |
| Witness1 | Drop-down menu |
| Witness2 | Drop-down menu |

4.2.1.4.5. Servicing tab

The Servicing tab provides a view of predefined servicing activities for a loan record in accordance with the loan's specific loan program requirements. It provides the user with a list of required steps in a timeline format so the user can track the progress of the servicing activity. Servicing activities include

- Calculation Worksheet 235 Insured
- Payoff Request
 - Request for Files
 - Subordination

4.2.1.4.6. Borrowers tab

The Borrowers tab provides the ability to view or edit existing loan borrower information.

The screenshot shows the 'Edit Borrower' window with three tabs: 'Borrower Information', 'Borrower Address', and 'Alternate contact'. The 'Borrower Information' tab is active, displaying the following fields:

- Borrower Information:**
 - First Name: *DAVE L
 - Last Name: *MADDOX
 - Home Phone: () -
 - Marital Status:
 - SSN: 224- 2-7 35
 - Birth Date: (dropdown menu)
 - Work Phone: () -
- Co-borrower Information:**
 - First Name:
 - Last Name:
 - Phone: () -
 - SSN: - -
 - Birth Date: (dropdown menu)
- Audit Information:**
 - Created By:
 - Changed By: lyberrada
 - Create Date:
 - Change Date: 11/27/2007 07:42 AM

At the bottom of the window are 'OK' and 'Cancel' buttons. A legend indicates that fields marked with an asterisk (*) are required.

Figure 27. Edit Borrower data window

The fields that can be edited are:

| Window | Tab | Field | Validation/Edit Type |
|-----------------------------|--------------------------|-------------------|--------------------------|
| Borrower Information | Borrower Information: | First Name | Alphanumeric Edit Mask |
| | | Last Name | Alphanumeric Edit Mask |
| | | Home Phone | Numeric Edit Mask |
| | | SSN | Numeric Edit Mask |
| | | Birth Date | Calendar |
| | | Work Phone | Numeric Edit Mask |
| | Co-borrower Information: | Marital Status | Alphanumeric Edit Mask |
| | | First Name | Alphanumeric Edit Mask |
| | | Last Name | Alphanumeric Edit Mask |
| | | Phone | Numeric Edit Mask |
| | | SSN | Numeric Edit Mask |
| | | Birth Date | Calendar |
| Borrower Address | Borrower Address: | Address1 | Alphanumeric Edit Mask |
| | | Address2 | Alphanumeric Edit Mask |
| | | City | Alphanumeric Edit Mask |
| | | State | Drop-down menu |
| | | Zip | Numeric Edit Mask |
| | | County | Alphanumeric Edit Mask |
| | Mailing Address: | Mail to Name | Alphanumeric Edit Mask |
| | | Address1 | Alphanumeric Edit Mask |
| | | Address2 | Alphanumeric Edit Mask |
| | | Address3 | Alphanumeric Edit Mask |
| Alternate Contact | Alternate Contact Info | First Name | Alphanumeric Edit Mask |
| | | Last Name | Alphanumeric Edit Mask |
| | | Address1 | Alphanumeric Edit Mask |
| | | Address2 | Alphanumeric Edit Mask |
| | | City | Alphanumeric Edit Mask |
| | | State | Drop-down menu |
| | | Zip | Numeric Edit Mask |
| | | Home Phone | Edit Mask (###) ###-#### |
| | | Work Phone | Edit Mask (###) ###-#### |
| | | Other Information | Text Area |

There must be at least one borrower record per loan in the system.

4.2.1.4.7. Property Inspection tab

The Property Inspection tab provides the capability to view, add, edit and delete property information. The tab allows the capability of importing a picture associated with a property into the database. Multiple pictures

may be attached to each loan. The ability to print a property inspection report in a report format is available but does not include any pictures. The ability to add and delete is allowed.

Figure 28. Edit Property Details window

The editable fields are:

| Tab | Field | Validation/Edit Type |
|-----------------|----------------------|-----------------------------------|
| Property Detail | Parcel# | Numeric Edit Mask |
| | Address1 | Alphanumeric Edit Mask |
| | Address2 | Alphanumeric Edit Mask |
| | County | Alphanumeric Edit Mask |
| | City | Alphanumeric Edit Mask |
| | State | Drop-down menu |
| | Zip | Numeric Edit Mask (#####-####) |
| | Owner Occupied | Check box |
| | Collect Tax Escrow | Check box |
| | Collect Insur Escrow | Check box |
| | Prop Type Code | Alphanumeric Edit Mask (1 digit) |
| | Prop Desc Code | Alphanumeric Edit Mask (2 digits) |
| | County Clerk | Drop-down menu |
| | Last Appraisal Date | Calendar |
| | Appraised Value | Numeric Edit Mask |
| | Last Inspect Date | Calendar |
| | Occupancy Date | Calendar |
| | Estimated Value | Numeric Edit Mask |
| | Property Condition | Drop-down menu |

| Tab | Field | Validation/Edit Type |
|----------|-------|----------------------|
| Pictures | | Http upload |

4.2.1.4.8. Transactions Tab

The Transactions tab only displays information that cannot be changed within the Transactions tab. The displayed information is associated with batch transactions for the loan. As activity occurs in that module, those data are displayed as read-only in this tab. There is no current functionality required for this tab other than viewing and printing.

4.2.1.4.9. Documents Tab

The Documents tab provides the capability to attach and detach scanned loan documents. Scanned loan documents should be scanned as TIF file formats. The system allows an unlimited number of scanned documents to be attached to each loan limited only to available hard-drive space and acceptable system performance.

4.2.1.4.10. Notes Tab

The Notes tab provides the capability to view and print loan notes. An unlimited number of notes can be associated with each loan however; a single note text is limited to 1000 characters. The user typically uses loan notes to track conversations related to loan investigations and outstanding issues. There are different note types available to help categorize notes for ease of lookup. The defined property note types are:

- Conversation Note
- Bankruptcy
- Exception Note
- Foreclosure Activities
- Lien Release Activity
- Pay Plan Note



| Note Type | Note | Created By | Create Date | Changed By | Change Date |
|--------------|---|------------|---------------------|------------|---------------------|
| Auto Note | Annual Occupancy Certification Letter Received | JNEWTON | 02/24/2009 04:29 PM | JNEWTON | 02/24/2009 04:29 PM |
| Auto Note | Annual Occupancy Certification Letter Sent to Borrower | TLANGSTON | 02/03/2009 09:29 AM | TLANGSTON | 02/03/2009 09:29 AM |
| General Note | RECEIVED INSURANCE DEC PAGE THRU: 07/10/09 | ltate | 06/05/2008 09:30 AM | | |
| General Note | Spoke with borrower and she is still occupying the property and her sig | mobrien | 04/18/2008 11:08 AM | | |
| Auto Note | Annual Occupancy Certification Letter Received | mobrien | 04/18/2008 11:08 AM | | |
| Auto Note | Verbal Confirmation of Occupancy Made | mobrien | 04/18/2008 11:07 AM | | |
| Auto Note | FARETS reports that taxes are current for JEFFERSON COUNTY - BIRMI | yberrada | 04/03/2008 02:42 PM | | |
| Auto Note | Annual Occupancy Certification Letter Sent to Borrower | lharp | 02/01/2008 10:49 AM | | |
| General Note | rec'd ins dec pg thru 7.10.08 | scrاندell | 05/30/2007 04:17 PM | | |
| Auto Note | Annual Occupancy Certification Letter Received | ldouthit | 04/02/2007 09:55 AM | | |
| Auto Note | FARETS reports that taxes are current for JEFFERSON COUNTY - BIRMI | yberrada | 03/01/2007 10:57 AM | | |
| Auto Note | Annual Occupancy Certification Letter Sent to Borrower | ctorres | 02/01/2007 01:56 PM | | |
| General Note | Recd Renewal DEC page, GT 7/10/07 | kallen | 06/01/2006 09:22 AM | | |
| General Note | Verified occupancy via telephone. Completed occupancy form. | mobrien | 04/18/2006 08:05 AM | mobrien | 04/18/2006 08:08 AM |
| Auto Note | Verbal Confirmation of Occupancy Made | mobrien | 04/18/2006 08:05 AM | | |

Figure 29. Note tab

Note: The list includes entries labeled "Auto Note." These are explained below.

4.2.1.4.10.1. Auto Note. **SMART** captures specified transactional data as an Auto Note based on pre-configured triggers. For example, a servicing letter or payoff for a GNND loan will create Auto Notes. These notes appear in the Notes tab for the affected module. It is important to know that Auto Notes contain operational, not either anecdotal or supplemental, data concerning a loan and the activities related to that loan. Auto Notes are most often used to track loan release activities.

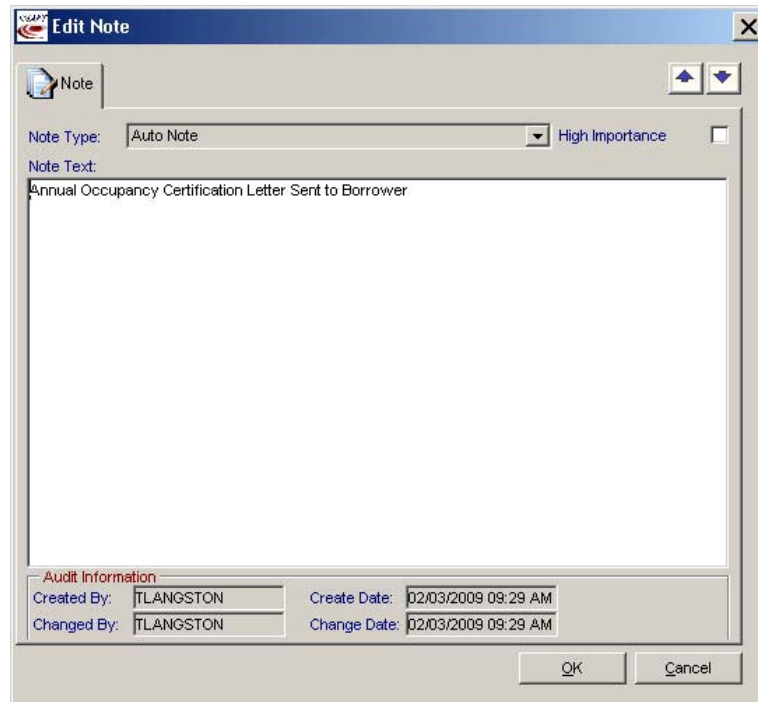


Figure 30. Auto Note—Edit Note dialog

4.2.1.4.11. Mortgage Release Tab

The Mortgage Release tab only displays information that cannot be changed within the Mortgage Release Activity tab. The displayed information is associated with the Lien Activity module for the property. As activity occurs in that module, those data are displayed as view only in the Mortgage Release Activity tab. There is no current functionality required for this tab other than viewing.

4.2.1.4.12. Exceptions Tab

The Exception tab provides the capability to view, add and edit loan exceptions on a loan. Loan Exceptions are used to identify unique conditions of a loan. The user is permitted to add new exceptions, update the exception date and exception note information and change the exception status from Active to Inactive. The user is not allowed to delete existing exceptions.

4.2.1.4.13. Servicing tab

The Servicing tab provides a view of predefined servicing activities for a loan record in accordance with the loan's specific loan program requirements. It provides the user with a list of required steps in a timeline format so the user can track the progress of the servicing activity. Servicing activities include

- Calculation Worksheet 235 Insured

- Payoff Request
 - Request for Files
 - Subordination

4.2.1.4.14. Foreclosure Tab

The Foreclosure tab only displays information that cannot be changed within the loan detail window. The displayed information is associated with the Foreclosure module for the property. As activity occurs in Foreclosure module, those data are displayed as read-only in this tab. There is no current functionality required for this tab other than viewing.

4.2.1.4.15. Bankruptcy Tab

The Bankruptcy tab only displays information that cannot be changed within the Bankruptcy tab. The displayed information is associated with the Bankruptcy module. As activity occurs in that module, those data displayed as read-only in the Bankruptcy tab. There is no current functionality required for this tab other than viewing.

4.2.1.5. Edit Loan Tabs: HECM-Assigned Loans

4.2.1.5.1. Loan Detail tab

The Loan Detail tab for HECM-Assigned loans provides the user the capability to view, edit, or add loan detail information.

Loan Detail

Loan Payment Information

Loan Status 1: 06-35 Paidoff - Third Party Orig Line of Credit: Gross Line of Credit: \$3,629.61 Monthly Service Fee: \$25.00 Term Payments: 0

Payment Plan: LINE OF CREDIT Unsch. Loan Bal: \$0.00 Maximum Claim: \$60,000.00

Sch Pay Status: Line of Credit Suspended Net Line Of Credit: \$0.00 Tax Escrow Amount: \$0.00

Sch Monthly Payment: \$0.00

Loan Rates

Curr Int Rate: 4.290 Margin: 1.60 Exp. Int Rate: 8.970

Prev. Int Rate: 4.290 Rate at Closing: 6.010 ARM Plan: Annual

Next Int Rate: 4.290 Next Int Rate Change: 04/01/2003 Print Statements: ☐

ARM Index: ARM Period:

Loan Dates

Mortgage/Signed Dt: 03/04/1992 Orig Loan Date: Cert Of Occupancy:

Funded Date: 03/09/1992 At Contractor On: 06/20/2001 Occ. Cert Sent:

MIC Date: 03/29/1993 Title Approval: 12/06/2001 Vacancy Date: 01/29/2002

Assignment Date: 10/11/2001 Payoff Date: 10/21/2002 Date Req. For CC:

Assign. Accepted: 08/15/2001 Section Of The Act: 0912 Date Placed In CC:

Loan Balance/Net Principal Limit

Original Prin Limit: Current Principal Limit: \$0.00

Loan Balance:

Principal Bal: \$0.00

Interest Bal: \$0.00

S/F Bal: \$0.00

MIP Bal: \$0.00

Total Loan Balance: \$0.00

Service Fee SA: \$0.00

Net Principal Limit: \$0.00

Set Asides/Esc Balance

Repair Set Aside: \$0.00

Other Set Aside: \$0.00

Tax Escrow Bal: \$0.00

Claim Payment Information

Claim Payment Information

Edit

Figure 31. Loan Detail tab (HECM-Assigned loan)

The following fields can be edited:

| Tab | Column | Field | Validation/Edit Type |
|-------------------|--------------------------|--------------------|----------------------|
| Loan Payment Info | Loan Payment Information | Loan Status 1 | Drop-down menu |
| | | Net Line of Credit | Numeric Edit Mask |
| | | Payment Plan | Drop-down menu |
| | | Term Payments | Numeric Edit Mask |

| Tab | Column | Field | Validation/Edit Type |
|------------------|-------------------------------|-------------------------|------------------------|
| Loan Information | | Sch Pay Status | Drop-down menu |
| | | Monthly Service Fee | Numeric Edit Mask |
| | | Sch Monthly Payment | Numeric Edit Mask |
| | | Maximum Claim | Numeric Edit Mask |
| | | Orig Line of Credit | Numeric Edit Mask |
| | | Fannie Mae # | Numeric Edit Mask |
| | | Gross Line of Credit | Numeric Edit Mask |
| | | Tax Escrow Amount | Numeric Edit Mask |
| | | Unsch. Loan Bal | Numeric Edit Mask |
| | | Current Principal Limit | Numeric Edit Mask |
| | Additional Information | Loan No. | Numeric Edit Mask |
| | | Forbearance Agreement | Check box |
| | | FHA Case# | Numeric Edit Mask |
| | | Contractual Due Date | Calendar |
| | | GI Code | Numeric Edit Mask |
| | | Loan Status | Drop-down menu |
| | | GI Matrix | Numeric Edit Mask |
| | | Branch Code | Numeric Edit Mask |
| | | Curr Int Rate | Numeric Edit Mask |
| | | Rate at Closing | Numeric Edit Mask |
| Loan Rates | Loan Rates | Prev. Int Rate | Numeric Edit Mask |
| | | Next Int Rate Change | Calendar |
| | | Next Int Rate | Numeric Edit Mask |
| | | Exp. Int Rate | Numeric Edit Mask |
| | | Margin | Numeric Edit Mask |
| | | ARM Plan | Drop-down menu |
| | | ARM Index | Drop-down menu |
| | | ARM Period | Drop-down menu |
| | | Mortgage/Signed Dt | Calendar |
| | | Funded Date | Calendar |
| Loan Dates | Loan Dates | Section of the Act | Alphanumeric Edit Mask |
| | | MIC Date | Calendar |
| | | Claim Paid Amount | Numeric Edit Mask |
| | | Date Req. For CC | Calendar |
| | | Orig Loan Date | Calendar |
| | | Date Placed in CC | Calendar |
| | | At Contractor On | Calendar |
| | | Print Statements | Check box |

4.2.1.5.2. Loan Filing tab

The Filing tab provides the ability to view or edit Loan Filing information.

Edit Loan

Loan Filing

Loan Filing Information

Prior Servicer Name: Closing Date: 06/09/2000

Prior Servicer Phone: Expiration Date: 06/09/2003

Project Name: File Entered Date: 04/14/2003

Project #: Notice Rec'd Date:

Project Id: VRS #:

Deed Restriction: ☐ Home Owner Incentive: ☐ Voucher #:

OT Cert (Form 9548): ☒ Sales Contract: ☒ Box #: OT009

Hard File: ☒ HUD Settlement: ☒ File Rec'd Date: 04/14/2003

Label Printed: ☒ Note Doc. Exists: ☐

Mortgage Doc. Exists: ☒ ☒ Officer ☐ Teacher

Audit Information

Created By: systemkg Create Date: 04/14/2003 12:00 AM

Changed By: system Change Date: 06/09/2004 11:31 AM

OK Cancel

Figure 32. Edit Loan Filing data window

The following fields are editable:

| Tab | Column | Field | Validation/Edit Type |
|-------------|-------------------------|----------------------|------------------------|
| Loan Filing | Loan Filing Information | Prior Servicer Name | Drop-down menu |
| | | Project Name | Drop-down menu |
| | | Deed Restriction | Check box |
| | | Home Owner Incentive | Check box |
| | | OT Cert (Form 9548) | Check box |
| | | Sales Contract | Check box |
| | | Hard File | Check box |
| | | HUD Settlement | Check box |
| | | Label Printed | Check box |
| | | Note Doc. Exists | Check box |
| | | Mortgage Doc. Exists | Check box |
| | | Officer | Radio button |
| | | Teacher | Radio button |
| | | Closing Date | Calendar |
| | | Expiration Date | Calendar |
| | | File Entered Date | Calendar |
| | | Notice Rec'd Date | Calendar |
| | | VRS # | Alphanumeric Edit Mask |
| | | Voucher # | Alphanumeric Edit Mask |

| Tab | Column | Field | Validation/Edit Type |
|-----|--------|-----------------|------------------------|
| | | Box # | Alphanumeric Edit Mask |
| | | File Rec'd Date | Calendar |

4.2.1.5.3. Loan Recording tab

The Loan Recording tab provides the user with the Loan Recording information.

Edit Loan

Loan Recording Information

Book #: 3007 Payoff Date:

Page #: 0412 Origination Date: 06/09/2000

Instrument #: 21981 Release Prepared Date:

Loan Recorded Dt: 06/12/2000 Mortgage Amount: \$58,925.00

Authorized Person:

Notary:

Prepared By:

Original Trustee: DWAYNE LOUK AND ROBERT E RULOFF

Substitute Trustee:

Witness1:

Witness2:

Audit Information

Created By: systemkg Create Date: 04/14/2003 12:00 AM

Changed By: system Change Date: 06/09/2004 11:31 AM

OK Cancel

Figure 33. Edit Loan Recording data window

The editable fields include:

| Tab | Field | Validation/Edit Type |
|----------------------------|-----------------------|------------------------|
| Loan Recording Information | Book # | Alphanumeric Edit Mask |
| | Page # | Alphanumeric Edit Mask |
| | Instrument # | Alphanumeric Edit Mask |
| | Loan Recorded Dt | Calendar |
| | Payoff Date | Calendar |
| | Origination Date | Calendar |
| | Release Prepared Date | Calendar |
| | Mortgage Amount | Calculator |
| | Authorized Person | Drop-down menu |
| | Notary | Drop-down menu |
| | Prepared By | Drop-down menu |
| | Original Trustee | Drop-down menu |
| | Substitute Trustee | Drop-down menu |

| Tab | Field | Validation/Edit Type |
|-----|----------|----------------------|
| | Witness1 | Drop-down menu |
| | Witness2 | Drop-down menu |

4.2.1.5.4. Borrowers tab

The Borrowers tab provides the ability to view or edit existing loan borrower information.

Figure 34. Edit Borrow data window

The fields that can be edited are:

| Window | Tab | Field | Validation/Edit Type |
|-----------------------------|--------------------------|----------------|------------------------|
| Borrower Information | Borrower Information: | First Name | Alphanumeric Edit Mask |
| | | Last Name | Alphanumeric Edit Mask |
| | | Home Phone | Numeric Edit Mask |
| | | SSN | Numeric Edit Mask |
| | | Birth Date | Calendar |
| | | Work Phone | Numeric Edit Mask |
| | | Marital Status | Alphanumeric Edit Mask |
| | Co-borrower Information: | First Name | Alphanumeric Edit Mask |
| | | Last Name | Alphanumeric Edit Mask |
| | | Phone | Numeric Edit Mask |
| | | SSN | Numeric Edit Mask |
| Borrower Address | Borrower Address: | Birth Date | Calendar |
| | | Address1 | Alphanumeric Edit Mask |

| Window | Tab | Field | Validation/Edit Type |
|--------------------------|------------------------|-------------------|--------------------------|
| | Mailing Address: | Address2 | Alphanumeric Edit Mask |
| | | City | Alphanumeric Edit Mask |
| | | State | Drop-down menu |
| | | Zip | Numeric Edit Mask |
| | | County | Alphanumeric Edit Mask |
| | | Mail to Name | Alphanumeric Edit Mask |
| | | Address1 | Alphanumeric Edit Mask |
| | | Address2 | Alphanumeric Edit Mask |
| | | Address3 | Alphanumeric Edit Mask |
| | | | |
| Alternate Contact | Alternate Contact Info | First Name | Alphanumeric Edit Mask |
| | | Last Name | Alphanumeric Edit Mask |
| | | Address1 | Alphanumeric Edit Mask |
| | | Address2 | Alphanumeric Edit Mask |
| | | City | Alphanumeric Edit Mask |
| | | State | Drop-down menu |
| | | Zip | Numeric Edit Mask |
| | | Home Phone | Edit Mask (###) ###-#### |
| | | Work Phone | Edit Mask (###) ###-#### |
| | | Other Information | Text Area |

4.2.1.5.5. Property Inspection tab

The Property Inspection tab provides the capability to view, add, edit and delete property information. The tab allows the capability of importing a picture associated with a property into the database. Multiple pictures may be attached to each loan. The ability to print a property inspection report in a report format is available but does not include any pictures. The ability to add and delete is allowed.

Figure 35. Edit Property Details window

The editable fields are:

| Tab | Field | Validation/Edit Type |
|-----------------|----------------------|-----------------------------------|
| Property Detail | Parcel# | Numeric Edit Mask |
| | Address1 | Alphanumeric Edit Mask |
| | Address2 | Alphanumeric Edit Mask |
| | County | Alphanumeric Edit Mask |
| | City | Alphanumeric Edit Mask |
| | State | Drop-down menu |
| | Zip | Numeric Edit Mask (#####-####) |
| | Owner Occupied | Check box |
| | Collect Tax Escrow | Check box |
| | Collect Insur Escrow | Check box |
| | Prop Type Code | Alphanumeric Edit Mask (1 digit) |
| | Prop Desc Code | Alphanumeric Edit Mask (2 digits) |
| | County Clerk | Drop-down menu |
| | Last Appraisal Date | Calendar |
| | Appraised Value | Numeric Edit Mask |
| | Last Inspect Date | Calendar |
| | Occupancy Date | Calendar |
| | Estimated Value | Numeric Edit Mask |
| | Property Condition | Drop-down menu |
| Pictures | | Http upload |

4.2.1.5.6. Documents tab

The Documents tab provides the capability to attach and detach scanned loan documents. Scanned loan documents should be scanned as TIF file formats. The system allows an unlimited number of scanned documents to be attached to each loan limited only to available hard-drive space and acceptable system performance.

4.2.1.5.7. Loan Bal. Trans tab

The Loan Bal. Trans tab displays the chronological order of loan balance transactions. This tab can be printed as a report and includes the following fields:

- Effective Date
- Trans Code
- Action Code
- Trans Description
- Principal Amount
- Interest Amt
- Service Fee
- MIP Trans Amt
- Total Trans Amt
- Create Date and Created By

Figure 36. Add Loan Balance Transaction data window

The editable fields are:

| Tab | Column | field | Validation/Edit Type |
|-------------|-------------|------------------|----------------------|
| Transaction | Transaction | Effective Date | Calendar |
| | | Transaction Type | Drop-down menu |

| Tab | Column | field | Validation/Edit Type |
|-----|-------------------------|-------|---|
| | Action Code | | Auto-fill (dependent upon Transaction Type) |
| | Transaction Code | | Auto-fill (dependent upon Transaction Type) |
| | Transaction Description | | Auto-fill (dependent upon Transaction Type) |
| | Sched./Unsched. Amount | | Numeric Edit Mask |
| | Interest Amount | | Numeric Edit Mask |
| | Service Fee Amount | | Numeric Edit Mask |
| | MIP | | Numeric Edit Mask |

4.2.1.5.8. Notes tab

The Notes tab provides the capability to view and print loan notes. An unlimited number of notes can be associated with each loan however; a single note text is limited to 1000 characters. The user typically uses loan notes to track conversations related to loan investigations and outstanding issues. There are different note types available to help categorize notes for ease of lookup. The defined property note types are:

- Conversation Note
- Bankruptcy
- Exception Note
- Foreclosure Activities
- Lien Release Activity
- Pay Plan Note

| Note Type | Note | Created By | Create Date | Changed By | Change Date |
|--------------|---|------------|---------------------|------------|---------------------|
| Auto Note | Annual Occupancy Certification Letter Received | JNEWTON | 02/24/2009 04:29 PM | JNEWTON | 02/24/2009 04:29 PM |
| Auto Note | Annual Occupancy Certification Letter Sent to Borrower | TLANGSTON | 02/03/2009 09:29 AM | TLANGSTON | 02/03/2009 09:29 AM |
| General Note | RECEIVED INSURANCE DEC PAGE THRU: 07/10/09 | Itate | 06/05/2008 09:30 AM | | |
| General Note | Spoke with borrower and she is still occupying the property and her sig | mobrien | 04/18/2008 11:08 AM | | |
| Auto Note | Annual Occupancy Certification Letter Received | mobrien | 04/18/2008 11:08 AM | | |
| Auto Note | Verbal Confirmation of Occupancy Made | mobrien | 04/18/2008 11:07 AM | | |
| Auto Note | FARETS reports that taxes are current for JEFFERSON COUNTY - BIRMI | yberrada | 04/03/2008 02:42 PM | | |
| Auto Note | Annual Occupancy Certification Letter Sent to Borrower | lharp | 02/01/2008 10:49 AM | | |
| General Note | rec'd ins dec pg thru 7.10.08 | scrandell | 05/30/2007 04:17 PM | | |
| Auto Note | Annual Occupancy Certification Letter Received | ldouthitt | 04/02/2007 09:55 AM | | |
| Auto Note | FARETS reports that taxes are current for JEFFERSON COUNTY - BIRMI | yberrada | 03/01/2007 10:57 AM | | |
| Auto Note | Annual Occupancy Certification Letter Sent to Borrower | ctorres | 02/01/2007 01:56 PM | | |
| General Note | Recd Renewal DEC page, GT 7/10/07 | kallen | 06/01/2006 09:22 AM | | |
| General Note | Verified occupancy via telephone. Completed occupancy form. | mobrien | 04/18/2006 08:05 AM | mobrien | 04/18/2006 08:08 AM |
| Auto Note | Verbal Confirmation of Occupancy Made | mobrien | 04/18/2006 08:05 AM | | |

Figure 37. Notes tab

Note: The list includes entries labeled "Auto Note." These are explained below.

4.2.1.5.8.1. Auto Note. **SMART** captures specified transactional data as an Auto Note based on pre-configured triggers. For example, a servicing letter or payoff for a GNND loan will create Auto Notes. These notes appear in the Notes tab for the affected module. It is important to know that Auto Notes contain operational, not either anecdotal or supplemental, data concerning a

loan and the activities related to that loan. Auto Notes are most often used to track loan release activities.

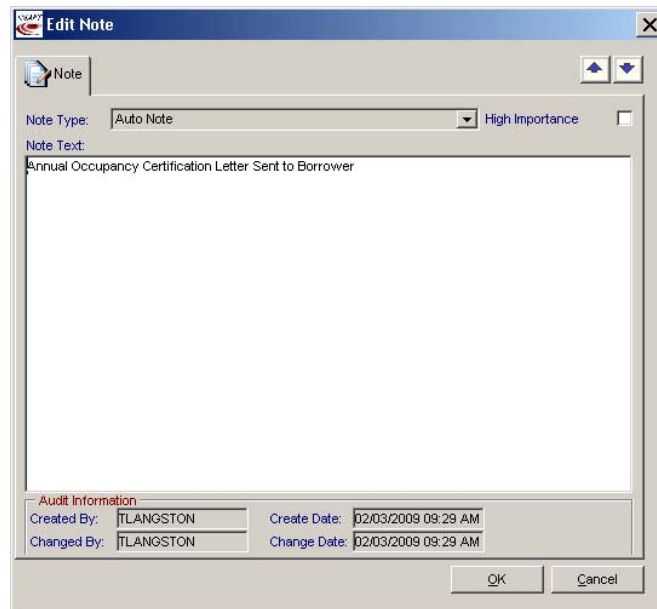


Figure 38. Auto Note—Edit Note dialog

4.2.1.5.9. Mortgage Release tab

The Mortgage Release Activity tab only displays information that cannot be changed within the Mortgage Release Activity tab. The displayed information is associated with the Lien Activity module for the property. As activity occurs in that module, those data are displayed as view only in the Mortgage Release Activity tab. There is no current functionality required for this tab other than viewing.

4.2.1.5.10. Exceptions tab

The Exception tab provides the capability to view, add and edit loan exceptions on a loan. Loan Exceptions are used to identify unique conditions of a loan. The user is permitted to add new exceptions, update the exception date and exception note information and change the exception status from Active to Inactive. The user is not allowed to delete existing exceptions.

4.2.1.5.11. Servicing tab

The Bankruptcy tab only displays information that cannot be changed within the Bankruptcy tab. The displayed information is associated with the Bankruptcy module. As activity occurs in that module, those data are displayed as read-only in the Bankruptcy tab. There is no current functionality required for this tab other than viewing.

4.2.1.5.12. Foreclosure tab

The Foreclosure tab only displays information that cannot be changed within the loan detail window. The displayed information is associated with the Foreclosure module for the property. As activity occurs in Foreclosure module, those data are displayed as read-only in this tab. There is no current functionality required for this tab other than viewing.

4.2.1.5.13. Bankruptcy tab

The Bankruptcy tab only displays information that cannot be changed within the Bankruptcy tab. The displayed information is associated with the Bankruptcy module. As activity occurs in that module, those data displayed as read-only in the Bankruptcy tab. There is no current functionality required for this tab other than viewing.

4.2.1.5.14. Disbursements tab

The disbursements tab displays a chronological listing of all disbursements related to the selected loan. Disbursements can be viewed, edited and new ones created.

Figure 39. Add Loan Disbursement data window

The following fields are editable:

| Tab | Column | Field | Validation/Edit Type |
|------------------|-----------------|------------------------------|------------------------|
| Pay to Selection | | Borrower First Name | Alphanumeric Edit Mask |
| | | Borrower Last Name | Alphanumeric Edit Mask |
| | | Co-borrower First Name | Alphanumeric Edit Mask |
| | | Co-borrower Last Name | Alphanumeric Edit Mask |
| | | Vendor | Drop-down menu |
| | Mailing Address | (Recipient) | Alphanumeric Edit Mask |
| | | (Recipient Street Address) | Alphanumeric Edit Mask |
| | | (Recipient City, State, Zip) | Alphanumeric Edit Mask |

4.2.1.5.15. Property Taxes tab

The Property Taxes tab displays read-only data concerning property taxes information that changes only when activity occurs in the Servicing module. The data displayed are:

- Delinquency Year
- Tax Authority Number
- Tax Authority Name
- Delinquency Status
- Tax Id Number

- Order Number
- Service Type
- Borrower Name
- Property Address
- Property City
- State Code
- Zip Code
- Search Date
- Post Date
- Tax Year
- Tax Bill Number
- First Installment
- Second Installment
- Third Installment
- Fourth Installment
- Total Installment
- Lien Note Code

There is no current functionality required for this tab other than viewing.

4.2.1.5.16. ACH Information tab

The ACH Information tab provides the ability to view existing ACH Bank information.

Figure 40. Edit ACH Bank data window

The editable fields are:

| Tab | Column | Field | Validation/Edit Type |
|----------|-------------|--------------------|----------------------|
| ACH Info | ACH Banking | ABA Routing Number | Numeric Edit Mask |

| Tab | Column | Field | Validation/Edit Type |
|-----|--------------------------|----------------|------------------------------|
| | Information | Account Number | Numeric Edit Mask |
| | | Account Type | Drop-down menu |
| | | Status | Drop-down menu |
| | Method of Payment | ACH | Radio button (single-select) |
| | | Check | Radio button (single-select) |

4.2.1.5.17. Payoff tab

The Payoff tab lists all payoff data pertaining to the selected loan in chronological order. From this tab:

- The Payoff Date can be set
- A payoff letter can be generated and printed
- A Payoff worksheet can be generated and printed

4.2.1.5.18. Monthly Statements tab

The Monthly Statements tab displays a chronological read-only listing of the monthly statements fields, including:

- Reporting Period
- Loan Skey
- Loan Number
- Mailing Address Name
- Mailing Address 1
- Mailing Address 2
- Mailing Address 3
- Loan Type
- Interest Rate(%)
- Prev. Int. Rate(%)
- Credit Line Growth(%)
- Payment Option
- Program Type
- Payments Remaining
- Funded Date
- Unpaid Principal Balance
- Misc Charges
- Cash Draws
- Scheduled Monthly Payment
- MIP Paid

- Monthly Service Fee
- Current Loan Balance
- Service Fee Set Aside
- Repair Set Aside
- Current Principal Limit
- Credit Line Balance
- Interest Charged
- Prepays
- ARM Change Date
- Month End date
- Created By
- Create Date
- Changed By
- Changed Date

4.2.1.5.19. Set Aside/Esc Trans tab (HECM-Assigned)

Set Aside/Esc Trans tab displays the chronological order of ESC and Set-Aside transactions. The data in this tab can be printed as a report.

Figure 41. Add Set-Aside Transaction data window

These fields are editable when a new transaction is added:

| Tab | Column | field | Validation/Edit Type |
|------------|-------------|----------------|----------------------|
| Set Aside/ | Transaction | Effective Date | Calendar |

| Tab | Column | field | Validation/Edit Type |
|-------------|--------|-------------------------|---|
| Transaction | | Transaction Type | Drop-down menu |
| | | Action Code | Auto-fill (dependent upon Transaction Type) |
| | | Transaction Code | Auto-fill (dependent upon Transaction Type) |
| | | Transaction Description | Auto-fill (dependent upon Transaction Type) |
| | | Service Fee Set Aside | Numeric Edit Mask |
| | | Repairs Set Aside | Numeric Edit Mask |
| | | Others Set Aside | Numeric Edit Mask |
| | | Tax Escrow | Numeric Edit Mask |

4.2.2. Bankruptcy Module

The Bankruptcy module is used to track and manage bankruptcies related to loan borrowers. The system allows the user to add new bankruptcies and manage the appropriate Bankruptcy Chapter tasks and completion dates. The entry into the loan Bankruptcy module is first through the frame toolbar button labeled “**Bankruptcy**.” A generic search window is first displayed to assist the user in identifying and searching for an existing loan in the release process.

4.2.2.1.1. Bankruptcy Search Window

4.2.2.1.1.1. The system provides functionality allowing authorized users to search for a loan in Bankruptcy by several different criteria. The Bankruptcy search criteria includes search by state, investor name (such as HUD), loan program name (such as 235, OND, etc.), loan#, bankruptcy task and property street address.

4.2.2.1.1.2. The Bankruptcy Search Window provides the functionality to add new loans into the Bankruptcy process.

4.2.2.1.2. Bankruptcy Add

4.2.2.1.2.1. New bankruptcy records are added to **SMART** using the Bankruptcy Wizard in the Bankruptcy Module. The user is prompted to enter:

- Loan Skey
- Bankruptcy chapter
- Bankruptcy filed date
- Optional information:
 - Account manger
 - Attorney
 - Case number

4.2.2.1.3. Bankruptcy Detail Window

- 4.2.2.1.3.1. Once the Bankruptcy detail window is opened, the tasks and steps required for the designated Bankruptcy Chapter are displayed. The system provides the ability to add completion dates as each Bankruptcy task is completed.
- 4.2.2.1.3.2. At the top of the Bankruptcy detail window (header information), the basic loan level information is displayed for reference. The data displayed consists of the following types of information: borrower name, loan number and loan program type.

4.2.3. Foreclosure Module

The Foreclosure module is used to track and manage foreclosures. The system allows the user to add new foreclosures and manage the appropriate foreclosure tasks associated with the state in which the foreclosure occurs. The system allows for different foreclosure steps per state. The system also allows the user to change the scheduled task completion date and enter completion dates as each foreclosure step is completed. Entry into the Foreclosure module is through the frame toolbar button labeled "Foreclosure." A generic search window is available to assist the user in identifying and searching for an existing loan in the release process.

4.2.3.1. Foreclosure Search window

The system allows authorized users to search for a loan in foreclosure by several different criteria. The Foreclosure Search criteria includes search by:

- State
- Investor name (such as HUD)
- Loan program name (such as 235, OND, etc.)
- Loan#
- Foreclosure task
- Property street address

In addition, the Foreclosure Search window provides the functionality to add new loans/properties into the Foreclosure process.

4.2.3.2. Foreclosure Detail window

Once the Foreclosure Detail window is opened, the tasks and steps required for the specific state's foreclosure process is displayed. The system provides the ability to add completion dates as each foreclosure task is completed.

At the top of the Foreclosure Detail window (header information), the basic loan level information is displayed for reference. The data displayed consists of the following type of information: borrower name, loan number, and loan program type. Below the basic header information are the release steps management tab. The following Foreclosure steps are generated once a loan is placed into foreclosure:

4.2.3.3. Foreclosure Mgmt window

4.2.3.3.1. Borrowers tab

The Borrowers tab provides the ability to view or edit existing borrower information. The fields that can be edited are:

| Window | Tab | Field | Validation/Edit Type |
|-----------------------------|--------------------------|-------------------|--------------------------|
| Borrower Information | Borrower Information: | First Name | Alphanumeric Edit Mask |
| | | Last Name | Alphanumeric Edit Mask |
| | | Home Phone | Numeric Edit Mask |
| | | SSN | Numeric Edit Mask |
| | | Birth Date | Calendar |
| | | Work Phone | Numeric Edit Mask |
| | | Marital Status | Alphanumeric Edit Mask |
| | Co-borrower Information: | First Name | Alphanumeric Edit Mask |
| | | Last Name | Alphanumeric Edit Mask |
| | | Phone | Numeric Edit Mask |
| | | SSN | Numeric Edit Mask |
| | | Birth Date | Calendar |
| | Borrower Address: | Address1 | Alphanumeric Edit Mask |
| | | Address2 | Alphanumeric Edit Mask |
| | | City | Alphanumeric Edit Mask |
| | | State | Drop-down menu |
| | | Zip | Numeric Edit Mask |
| | | County | Alphanumeric Edit Mask |
| Mailing Address | Mailing Address: | Mail to Name | Alphanumeric Edit Mask |
| | | Address1 | Alphanumeric Edit Mask |
| | | Address2 | Alphanumeric Edit Mask |
| | | Address3 | Alphanumeric Edit Mask |
| Alternate Contact | Alternate Contact Info | First Name | Alphanumeric Edit Mask |
| | | Last Name | Alphanumeric Edit Mask |
| | | Address1 | Alphanumeric Edit Mask |
| | | Address2 | Alphanumeric Edit Mask |
| | | City | Alphanumeric Edit Mask |
| | | State | Drop-down menu |
| | | Zip | Numeric Edit Mask |
| | | Home Phone | Edit Mask (###) ###-#### |
| | | Work Phone | Edit Mask (###) ###-#### |
| | | Other Information | Text Area |

4.2.3.3.2. Property Inspection tab

The Property Inspection tab provides the capability to view, add, edit and delete property information. The tab allows the capability of importing a picture associated with a property into the database. Multiple pictures may be attached to each loan. The ability to print the details of a property inspection in a report format is available but does not include any pictures. The ability to add and delete is allowed.

4.2.3.3.3. Documents tab

The Documents tab provides the capability to attach and detach scanned loan documents. Scanned loan documents should be scanned as TIF file formats. The system allows an unlimited number of scanned documents to be attached to each loan limited only to available hard-drive space and acceptable system performance.

4.2.3.3.4. Notes tab

The Notes tab provides the capability to view and print foreclosure notes. An unlimited number of notes can be associated with each loan however; a single note text is limited to 1000 characters. The user typically uses loan notes to track conversations related to foreclosure investigations and outstanding issues. There are different note types available to help categorize notes for ease of lookup.

4.2.4. Mortgage Release Module

The **SMART** loan release module is be used to track release tasks, print “Deed of Trust” forms, mortgage release forms and other miscellaneous release related forms. The entry into the loan release module is first through the frame toolbar button labeled “Mtg. Release”. A generic search window is provided to assist the user in identifying and searching for existing loans in the release process.

4.2.4.1. Mtg. Release Search window

The system allows authorized users to search for a loan in the release process by several different criteria. The loan release search criteria includes search by:

- State
- Investor Name (such as HUD)
- Loan Program name (such as 235, OND, etc.)
- Loan#
- Property street address.

The Mortgage Release Search window also provides the functionality to add new loans into the release process.

Loans that become fully paid require the creation of release tasks to track and generate forms. Newly redeemed loans need to be added to the release process for tracking.

Release Check information entered into the Mortgage Release Forms Wizard can be reported and printed in the approved check format by the users with appropriate security access.

The status of a release check can be updated, if necessary, to:

- Voided
- Cleared
- Reimbursable

The system automatically updates the Print Status of a check when the check has been successfully printed.

4.2.4.2. Mtg. Release Detail window

Once the loan release detail window is opened, the tasks and steps required for a mortgage release is displayed. The system provides the ability to change the status and complete dates associated with each release step.

At the top of the Mtg. Release Detail window (header information), the basic loan level information is displayed for reference. The data displayed consists of these information types:

- Borrower name
- Loan number
- Loan program type

4.2.4.2.1. Release Activity tab

The Release Activity tab tracks the following steps:

- Release Request Received/Initiated
- File requested from document custodian
- File received from document custodian
- Lien release package/check requested
- Lien release package signed by authorized signatory
- Lien release package mailed for recording
- Recorded release received from county
- Copy to Imaging Image
- File to storage/process complete

This tab allows authorized users the ability to modify an existing Step and to add a new Step in the Mortgage Release process.

4.2.4.2.1.1. **Modify Existing Release Step**—Authorized users are able only to add an Activity Step Note about the Step selected.

4.2.4.2.1.2. **Add New Step**—Users can enter the data identified below:

| Column | Field | Validation/Edit Type |
|------------------------------|---------------------------|----------------------|
| Activity Step Details | Activity Step | Drop-down menu |
| | Scheduled Completion Date | Calendar |
| | Actual Completion Date | Calendar |
| | Activity Step Note | Text Area |
| Audit Information | Created By | Auto-generated |
| | Create Date | Auto-generated |

| Column | Field | Validation/Edit Type |
|--------|-------------|----------------------|
| | Changed By | Auto-generated |
| | Change Date | Auto-generated |

4.2.4.2.2. Borrowers tab

The Borrowers tab provides the ability to view or edit existing borrower information. The fields that can be edited are:

| Tab | DataSet | Field | Validation/Edit Type |
|-----------------------------|--------------------------|----------------|--------------------------|
| Borrower Information | Borrower Information: | First Name | Alphanumeric Edit Mask |
| | | Last Name | Alphanumeric Edit Mask |
| | | Home Phone | Numeric Edit Mask |
| | | SSN | Numeric Edit Mask |
| | | Birth Date | Calendar |
| | | Work Phone | Numeric Edit Mask |
| | | Marital Status | Alphanumeric Edit Mask |
| Borrower Address | Co-borrower Information: | First Name | Alphanumeric Edit Mask |
| | | Last Name | Alphanumeric Edit Mask |
| | | Phone | Numeric Edit Mask |
| | | SSN | Numeric Edit Mask |
| | | Birth Date | Calendar |
| | Borrower Address: | Address1 | Alphanumeric Edit Mask |
| | | Address2 | Alphanumeric Edit Mask |
| | | City | Alphanumeric Edit Mask |
| | | State | Drop-down menu |
| | | Zip | Numeric Edit Mask |
| Alternate Contact | Mailing Address: | County | Alphanumeric Edit Mask |
| | | Mail to Name | Alphanumeric Edit Mask |
| | | Address1 | Alphanumeric Edit Mask |
| | | Address2 | Alphanumeric Edit Mask |
| | | Address3 | Alphanumeric Edit Mask |
| | Alternate Contact Info | First Name | Alphanumeric Edit Mask |
| | | Last Name | Alphanumeric Edit Mask |
| | | Address1 | Alphanumeric Edit Mask |
| | | Address2 | Alphanumeric Edit Mask |
| | | City | Alphanumeric Edit Mask |
| | | State | Drop-down menu |
| | | Zip | Numeric Edit Mask |
| | | Home Phone | Edit Mask (###) ###-#### |
| | | Work Phone | Edit Mask (###) ###-#### |

| Tab | DataSet | Field | Validation/Edit Type |
|-----|---------|-------------------|----------------------|
| | | Other Information | Text Area |

4.2.4.2.3. Property Inspection tab

The Property Inspection tab provides the capability to view, add, edit and delete property information. The tab allows the capability of importing a picture associated with a property onto the database. Multiple pictures may be attached to each loan. The ability to print a property inspection report in a report format is available but does not include any pictures. The ability to add and delete is allowed.

4.2.4.2.4. Transactions tab

The Transactions tab provides an informational display only and cannot be changed within the Transactions tab. The displayed information is associated with batch transactions for the loan and as activity occurs in that module the information is displayed as view only in this tab. There is currently no functionality required for this tab other than viewing and printing.

4.2.4.2.5. Documents tab

The Documents tab provides the capability to attach and detach scanned loan documents. Scanned loan documents should be scanned as TIF file formats. The system allows an unlimited number of scanned documents to be attached to each loan limited only to available hard-drive space and acceptable system performance.

4.2.4.2.6. Loan Recording Information tab

The Loan Recording tab provides the user with the Loan Recording Information. This includes the:

- Book number
- Page number
- Instrument number
- Payoff Date
- Release Prepared Date
- Origination Date
- Loan Recorded Date
- Mortgage Amount
- Authorized Person
- Notary, Prepared By
- Original Trustee
- Substitute Trustee
- Witness 1
- Witness 2

4.2.4.2.7. Checks tab

The Checks tab provides a listing of check information for the selected loan. Check information displayed includes the following:

- Check #
- Check Amount
- Check Date
- Pay To
- Printed
- Voided
- Cleared
- Created By
- Created Date
- Changed By
- Change Date
- Printed By
- Print Date
- Payor Last Name
- First Name
- Payor Address Line
- Payor Address Line2
- City
- State
- Zip
- Phone
- Bank Routing #
- Account #
- Reimbursable

4.2.4.2.8. Notes tab

The Notes tab provides the capability to view and print foreclosure notes. An unlimited number of notes can be associated with each loan however; a single note text is limited to 1000 characters. The user typically uses loan notes to track conversations related to foreclosure investigations and outstanding issues. There are different note types available to help categorize notes for ease of lookup.

4.2.4.2.9. Exceptions tab

The Exception tab provides the capability to view, add and edit loan exceptions on a loan. Loan Exceptions are used to identify unique conditions of a loan. The user is permitted to add new exceptions, update the exception date and exception note information and change the exception status from Active to Inactive. The user is not allowed to delete existing exceptions.

4.2.5. Servicing Module

The Servicing module is used to assist the user through the servicing activities required for a loan by providing program specific servicing activity timelines and a forms wizard for the generation of specific loan servicing forms and letters. The predefined templates for servicing steps activities provides a 'Scheduled Date' for each step by which time the specific action is to be completed. This allows the user to queue and plan their workload on a daily basis and track the servicing progress of each loan. Various optional servicing activity steps may be added as needed in the detail window of this module.

4.2.5.1. Servicing Search window

From this window the user can assign new servicing activities through the Mortgage Servicing Wizard. The wizard steps the user through the process in order to set up the different type servicing activities. Several of the servicing templates have steps associated with letters or forms, these steps are identified by a printer icon displayed to the left of them and appear in red font. The letters or forms can be printed and their associated servicing steps completed in bulk from here using the Mortgage Servicing Forms Wizard. By selecting (highlighting) multiple records and clicking the wizard button the user is prompted through the process to print the forms/letters and set the completion date. The Mortgage Servicing Summary report can be printed by clicking the Graph button on the menu bar.

4.2.5.2. Servicing Detail window

At the top of the servicing detail window (header information), the basic loan level information is displayed for reference. The data displayed consists of the following type of information:

- Borrower name
- Loan number
- Loan program type

4.2.5.2.1. Servicing Steps tab

The Servicing Steps tab provides the user the ability to view, add and edit the servicing activities assigned to the loan. Various optional servicing activity steps may be added as needed. The status of the step can be changed to inactive if the user added an item to the template in error or if it is no longer applicable to the loan. The user can also update the completion date for the step.

4.2.5.2.2. Servicing Mgmt tab

The Servicing Management tab offers a general summary of the Servicing template and allows the user to update the status of the selected servicing template. The DataWindow displayed is dynamic and varies depending on the Services History type selected for the selected loan.

- **Calculation Worksheet**
 - The worksheet date can be entered and edited in this window.
- **Insurance**
 - The related insurance servicing information can be entered and edited in the tab.
- **Loss Mitigation—Deed in Lieu**
 - An attorney can be selected and edited.

- **Loss Mitigation—Pre-Foreclosure**
 - An attorney can be selected and edited.
- **Payoff Request**
 - The payoff request servicing information can be entered and edited.
- **Pre-Loss Mitigation**
 - The reason for default of the loan can be selected and edited.
- **Request for Files**
 - The request information can be entered and edited.
- **Title Approval**
 - The title approval status of the loan can be selected and edited.
- **Violation Investigation**
 - The result of the violation investigation can be entered and edited.

4.2.5.2.3. Notes tab

The Notes tab provides the capability to view and print servicing notes. An unlimited number of notes can be associated with each loan however; a single note text is limited to 1000 characters. The user typically uses loan notes to track conversations related to foreclosure investigations and outstanding issues. There are different note types available to help categorize notes for ease of lookup.

4.2.6. Maintenance Module

The Maintenance module allows authorized users to set user default preferences, change passwords, and add new table entries.

4.2.6.1. View/Edit System Options

Authorized users may view and edit system options including report options, foreclosure options, pdf program, company address, company phone numbers, system idle process, paths, password and company logo.

4.2.6.2. View/Edit Table Maintenance

Authorized users may view, edit, add and delete reference table entries.

4.2.6.3. View/Edit Company Settings

Authorized users may view and edit company information including company address, company phone numbers, company logo and audit information.

4.2.6.4. Import Bulk Data

Authorized users can import bulk data from these sources using the Data Import/Bulk Data Import Wizard in the Maintenance module:

- CHUMS

- HECM Disbursements
- SAMS
- TIPS

4.2.7. Customer Service Module

The Customer Service module provides an intuitive user interface for tracking and controlling service calls, as well as automate and support Loss Mitigation for HUD loans. Basic functionality existed in the legacy production system of **SMART** to support customer service calls; however, the process was redesigned to be better aligned with business rules and servicing requirements.

4.2.7.1. Customer Service window

Not all **SMART** users can see each Customer Service tab. The following table identifies the tabs and who is authorized to use them:

| User | Visible Tabs |
|------------------|---|
| HUD Users | <ul style="list-style-type: none"> ▪ HUD Inbox ▪ Ticket Search |
| HUD Supervisor | <ul style="list-style-type: none"> ▪ HUD Inbox ▪ Supervisor Inbox ▪ Action List ▪ Ticket Search |
| Customer Service | Ticket Search |
| CS Supervisor | <ul style="list-style-type: none"> ▪ Supervisor Inbox ▪ Ticket Search |

4.2.7.2. HUD Inbox tab

- The HUD Inbox is the default tab for HUD users.
- A HUD Specialist is the only individual able to view his/her inbox.
- The HUD Inbox auto-populates with “Open” tickets assigned to the current user.
- Sorting: Priority (“High,” “Medium,” “Low”), Aging (Descending Date).
- Double-clicking an inbox row takes the user to the corresponding Ticket Detail
- A Show All filter allows Specialists to include “Closed” tickets in view.
- A date range, **From and To**, is provided for with the Show All filter.
- HUD Supervisors may select all or individual HUD users from a drop-down menu to view their Inbox.
- Aging: If a new Ticket is created for the same FHA Case No., the Aging function starts counting from the first incident created, not the most recent incident.

42.7.3. Supervisor Inbox tab

- All tickets created with the **Ticket Wizard** and given a disposition of “Referred to NSC” are sent to this Supervisor Inbox for review.
- The supervisor receives an email notification when a ticket is sent to the respective inbox for review.
- Supervisors have the ability to review ticket details by double-clicking a row in the Supervisor Inbox.
- After review, the supervisor has the ability to assign a ticket to a HUD specialist by clicking the Auto Assign button at the top to the tab. The new HUD designee appears in the New Designee field. The names are selected using a round robin approach based on the last assignment date.
- Once the assignment is saved, the Supervisor Inbox is refreshed and the reassigned ticket disappears.

42.7.4. Action List tab

- The **Action List** tab displays all the actions that were missed and provide a required follow up deadline as well as all actions that are required to be completed within 24 hours.
- Displays all tickets with a pending Foreclosure (FC) sale date within 48 hours of the sale date.
- The **Action List** is refreshed every time the tab is selected; new pending actions appear automatically.
- Tickets automatically disappear from the list once the follow up is completed or the ticket is resolved and closed by a specialist.
- Follow up action dates are set every seven (7) days, with the exception of the “Courtesy Call” and “Controlled Correspondence Contact” actions which are within 24 hours.
- The Program Director can change the default follow up time intervals, if case requires.
- E-mail notification is provided to HUD when a ticket has a foreclosure scheduled with 48 hours.
- The **Action List** tab provides access to all actions required by the user and is not restricted to a particular FHA Case No.
- No e-mail notification is necessary to prompt the user for next action required.

42.7.5. Ticket Wizard

The new module improves the process of adding a record by applying the following business rules before adding a record from the Ticket Wizard:

- If an active ticket already exists for a different reason code or if there is currently no active ticket, the new ticket is created.
- All users can create a new ticket.
- If an active ticket exists for the same reason code, upon clicking Finish, the user receives a pop-up message asking them if they would like to go to the Call Log screen for the active ticket with the same reason code. If the user clicks OK, they go to the **Call Log** screen for that ticket. If the user clicks Cancel, they return to the Ticket Wizard screen with the input data retained.
- Required fields are based on the loan type selected.

4.2.7.6. Ticket Search

- Users of the revised module are able to find an active ("Open" or "Pending") ticket for the matching reason code and simply add a call to the log with basic information about the call such as the name of the caller, the caller's phone number, and a note about the call.
- Tags are available for each note with the corresponding ticket number and allow the user to sort or filter notes by ticket number.
- The revised module allows users to retrieve records based on the Lender's Name.
- The module also allows all users to retrieve records assigned to them in the Designee field and narrow the result based on the status of these records.
- The module allows users to retrieve search results by pressing the Enter key.

4.2.7.7. Ticket Information window—Ticket Action tab

- Current Action is a drop-down of all available ticket actions.
- Current Action defaults to "Courtesy Call" upon ticket creation.
- Days in Current Action are the number of days since the ticket assignment to a HUD specialist.
- Current Action can be changed by selecting a different action from the drop-down menu; however, all remaining fields (Contact Type, Contact Date Result) must be populated before changing current action. The system prompts for any missing data.
- Current Action displays on the **Ticket Detail** tab.
- Controlled Correspondence is tracked on this tab. **CC Type** is a drop-down menu of available types of controlled correspondence.

4.2.7.8. Loss Mitigation

- Loss mitigation functionality allows the user to gather and analyze the borrower's current financial situation.
- The user has the ability to override the recommended loss mitigation option provided by the system.
- The user is able to print the financial analysis worksheet in a printer-ready format.
- The system makes the necessary calculations once the required fields are completed and a recommendation has been made for a loss mitigation option.
 - The system totals income and expense items.
 - The system calculates the total monthly surplus income by subtracting the total expenses from the total income.
 - The system calculates the surplus income percentage by dividing the total monthly surplus income by the total expenses.
 - Once sufficient data is entered, the system auto-populates the recommended loss mitigation option field based on the following logic:
 - If the borrower has a surplus funds percentage greater than zero and a number of months delinquent from three (3) months to twelve (12) months, the system recommends the **Special Forbearance Plan**.
 - If the borrower has a surplus funds percentage greater than zero and a number of months delinquent greater than twelve (12) months, the system recommend sa **Loan Modification**.

- If borrower has a surplus funds percentage of zero or less and a number of months delinquent of one month or greater, the system recommends a **Pre-foreclosure Sale**.

4.2.7.9. Ticket Assignments—Round Robin

- The round robin functionality automatically assigns a ticket to the next available HUD staff member based on status of “Active” and last assignment date.
- The HUD Inbox displays the open tickets assigned to the user that is currently logged into the system.
- Only HUD Supervisors can view assignments of other specialists by selecting the specialist name from the drop-down menu in the HUD Inbox.
- Functionality is provided to change the status of a HUD specialist in order to preclude ticket assignment, for example, if the specialist is on vacation.
- Ticket assignments to a HUD specialist have a disposition code of: “Referred to NSC (servicing),” “Referred to NSC (loss mitigation),” or “Referred to NSC (other).”

4.2.7.10. Ticket Detail

- The module has a Designee field to assign a **SMART** user to resolve the ticket issue. The user is notified via a system generated e-mail.
- The Loan Type field is provided to improve the reporting capabilities of the system and account for unique situations such as wrong loan numbers and research issues.
- The Status field is provided to accurately track the progress of the resolution of tickets.
- Incident tracking is separated from call tracking.

4.3. Input and Output

4.3.1. Inputs

4.3.1.1. Strategy

SMART receives data from the Strategy system, which includes Title II Secretary Held First and Second Mortgages on a daily basis. Data is only received from the Strategy system to refresh the data in **SMART**, but data does not flow from **SMART** back to **Strategy**.

4.3.1.2. Rēkon

Data related to the mortgage release process, generated in the Rēkon system, discussed above in Section 4.2.7.2, is imported into the **SMART** system. Additionally, software triggers cause the direction export of checks data created in Rēkon to the **SMART** database.

4.3.1.3. Wachovia Positive Pay

The Wachovia Positive Pay subsystem retrieves the monthly statement file from Wachovia and loads the pertinent data in the **SMART** system to support the monthly reconciliation process.

4.3.1.4. Other Input

4.3.1.4.1. User Input

Users input data manually into the **SMART** system by creating individual records through a series of Wizards and general input screens (of manual entry screens).

4.3.1.4.2. Bulk Data Input

Bulk data can be imported into **SMART** from several HUD systems. The following is a list of HUD Applications from which **SMART** obtains additional data:

- 4.3.1.4.2.1. Computerized Homes Underwriting Management (CHUMS)
- 4.3.1.4.2.2. Home Equity Conversion Mortgage (HECM) Claims Disbursements—data from Single Family Insurance System (A43)
- 4.3.1.4.2.3. Single Family Acquired Asset Management System (SAMS)
- 4.3.1.4.2.4. Tax Payment Service (TPS)

4.3.1.5. Vendor Input

4.3.1.5.1. Other Vendor Data

Data is also imported into **SMART** from several vendors as listed below:

- 4.3.1.5.1.1. First American Real Estate Tax Service (FARETS)—Tax Payment Service (TPS) data, i.e. real estate property tax due dates, delinquencies, and penalties
- 4.3.1.5.1.2. LexisNexis/BANKO—provides confirmation of a homeowner's bankruptcy status
- 4.3.1.5.1.3. Strategy system—**SMART** receives loan information.

4.3.2. Outputs

4.3.2.1. Reports

4.3.2.1.1. Foreclosure

- 4.3.2.1.1.1. Foreclosure Activity Listing

4.3.2.1.2. Monthly/Weekly reports

- 4.3.2.1.2.1. Automated Month-end Reporting
- 4.3.2.1.2.2. Details For Expired Mortgages Not Sent For Recording
- 4.3.2.1.2.3. Details For Subordinations Carried Over (Working On)
- 4.3.2.1.2.4. HECM Insured—Monthly Activity Invoice Detail Report
- 4.3.2.1.2.5. HUD Monthly Director Report
- 4.3.2.1.2.6. HUD Monthly Director Report—Collection Summary

- 4.3.2.1.2.7. HUD Monthly Director Report—Loan Inventory Summary
- 4.3.2.1.2.8. HUD Monthly Director Report—Summary (Ending UPB)
- 4.3.2.1.2.9. List of Open Loans (At Month End)
- 4.3.2.1.2.10. Loans Not Processed in Month End
- 4.3.2.1.2.11. Monthly Claims Paid Report
- 4.3.2.1.2.12. Monthly Counts
- 4.3.2.1.2.13. Mortgage Monthly Statements
- 4.3.2.1.2.14. Weekly Counts

4.3.2.1.3. Servicing/Release reports

- 4.3.2.1.3.1. Audit Log by User
- 4.3.2.1.3.2. Audit Tracking Report
- 4.3.2.1.3.3. Audit Tracking Report By User
- 4.3.2.1.3.4. Calculation Log
- 4.3.2.1.3.5. Closed Loan Files
- 4.3.2.1.3.6. Congressional Report
- 4.3.2.1.3.7. Disbursement Detail
- 4.3.2.1.3.8. Disbursement Summary
- 4.3.2.1.3.9. Export Banko File
- 4.3.2.1.3.10. Export Chase Check Reconciliation
- 4.3.2.1.3.11. Export Files With Missing Documentation for DCPS
- 4.3.2.1.3.12. Files With Missing Documentation
- 4.3.2.1.3.13. HECM Complaint Report
- 4.3.2.1.3.14. Loans Released With Balances
- 4.3.2.1.3.15. Missing Loan Document Detail
- 4.3.2.1.3.16. Needs Custodial Care Report
- 4.3.2.1.3.17. Release Activity Steps By User
- 4.3.2.1.3.18. Title Approval Denied Report
- 4.3.2.1.3.19. TPS Data Import Details
- 4.3.2.1.3.20. Transaction Detail Report

4.3.2.1.4. Customer Service

- 4.3.2.1.4.1. Comprehensive Report

- 4.3.2.1.4.2. Controlled Correspondence Report
- 4.3.2.1.4.3. CSC/HUD Closed Ticket Status
- 4.3.2.1.4.4. HUD Specialist Closed Ticket Status
- 4.3.2.1.4.5. HUD Specialist Open Ticket Status
- 4.3.2.1.4.6. HUD Specialist Tickets by Call Disposition
- 4.3.2.1.4.7. HUD Specialist Tickets by Region
- 4.3.2.1.4.8. Lender Specific Report
- 4.3.2.1.4.9. Performance Summary
- 4.3.2.1.4.10. Reason for Calling Report
- 4.3.2.1.4.11. Tickets by Call Disposition
- 4.3.2.1.4.12. Trend Report

4.3.2.2. Rēkon

Data related to the initiation of releases from **SMART** is exported to the Rēkon system, discussed in detail above.

4.3.2.3. Wachovia Positive Pay

The Wachovia Positive Pay subsystem extracts checks that have been written during the day, or since the last time the process has been run, including voided items, and transmits the resulting file to Wachovia using Secure Shell File Transfer Protocol (SFTP).

4.3.2.4. Other Outputs

SMART exports data to the following systems:

- HUD Federal Housing Administration Subsidiary Ledger (FHASL)
- Lexis/Nexis BANKO—a public records database for bankruptcies

4.4. Failure Contingencies

CLS-MGC has taken the precaution to prevent potential failures by ensuring the following backup procedures are in place:

4.4.1. Backup

4.4.1.1. Internal Backup

A system backup procedure for the **SMART** system is an automated process. The software used by MGC (Symantec Backup Exec 11d):

1. Performs a daily differential backup; five tapes are allocated for this process
2. Performs a weekly full backup

- One backup tape is allocated for this process and IT Staff in Tulsa does a full weekly backup of the smart database using the backup utility provided by Microsoft SQL Server.
- Copies are saved locally on the **SMART** production server
- 3. Performs a full monthly backup
 - One backup tape is allocated for this process where IT Staff in Tulsa execute a full monthly backup of the smart database using the backup utility provided by Microsoft SQL Server.
 - Copies are saved locally on the **SMART** production server.

4.4.1.1.1. Daily Procedure

This process is automated.

- 4.4.1.1.1.1. The software used by CLS-MGC (Symantec Backup Exec) performs a daily differential backup.
- 4.4.1.1.1.2. Five (5) backup tapes allocated for this process (from Tuesday to Saturday) located in Slots 1–5.
- 4.4.1.1.1.3. Tapes are overwritten when they are full.

4.4.1.1.2. Weekly Procedure

This process is automated.

- 4.4.1.1.2.1. Symantec Backup Exec performs a weekly full backup.
 - One (1) backup tape allocated for this process (on Sunday) located in the Slot 6
 - This tape is overwritten when it becomes full
- 4.4.1.1.2.2. The IT Staff in Tulsa executes a full weekly backup of the **SMART** database using the backup utility provided by SQL Server.
 - Copies are saved locally on the **SMART** server under (F:\SQL Backup).

4.4.1.1.3. Monthly Procedure

Symantec Backup Exec performs an automated monthly full backup.

- 4.4.1.1.3.1. One (1) backup tape allocated for this process (for the first day of the month—if there is a conflict with the start time, the, monthly full backup supersedes weekly full backup) located in Slot 7.
 - This tape is overwritten every month.
- 4.4.1.1.3.2. The IT Staff in Tulsa executes a full monthly backup of the **SMART** database using the backup utility provided by SQL Server.
 - The copies are saved locally on the **SMART** server under (F:\SQL Backup).
- 4.4.1.1.3.3. The Offsite Backup supersedes the onsite backup. The offsite backup is stored encrypted to a secure data center, Ongoing Operations, LLC.

4.4.1.2. Alternate Storage Site

The alternate storage site cannot be susceptible to the same hazards as the primary storage site. MGC has established an alternate storage site separate from the primary production site in Tulsa OK in Hagerstown, MD. Ongoing Operations LLC is the external vendor that provides off-site storage for encrypted media.

Offsite backup data is stored encrypted and transmitted to a secure data center at Ongoing Operations. Specifically, such data is sent to an EVault server via the a network mesh linking both the Tulsa OK and Lanham MD facilities with the Ongoing Operations data center in Frederick MD.

4.4.2. Fallback

In the event of a disaster, data is reconstituted from internally generated backups or the EVault backup located at the Ongoing Operations data center.

4.4.3. Degraded Modes of Operation

The **SMART** system does not necessarily have degraded modes of operation; however, it is possible, due to the modular design of the system, to use some areas of functionality while others are not available. Additionally, in the event of a network outage not directly affecting the MGC LAN, it is possible for internal servicing users to access the system.

5.0 DESIGN CONSIDERATIONS

5.0 DESIGN CONSIDERATIONS

5.1. System Description

SMART is a client/server Windows®-based proprietary mortgage and customer servicing platform owned by HUD that streamlines the process of managing the mortgage loan portfolio for HUD. It is a major application that services approximately 400,000 loans. The **SMART** system allows users to search and review loan information, foreclosure and bankruptcy activity; make and review disbursements; run reports; send letters; and track and provide tickets for various other loan servicing activities.

The **SMART** system runs on Windows XP®, Windows Server 2003®. The primary development language/tool is PowerBuilder version 10.5; MS SQL Server 2000® is the database management system (DBMS). End user workstations and the various servers that support the system run a Microsoft® operating system.

General users of the system include contractor/subcontractor, CLS and MGC personnel respectively. General users provide all aspects of data processing within the **SMART** system. Some HUD users have access to the system generally for read-only purposes, but they are able to add and/or edit the Notes.

In addition to supporting the loan processing and customer service function related to the HUD mortgage portfolio, **SMART** is designed to:

- Provide capabilities for managing loan servicing activities
- Allow for managing loans in either bankruptcy or foreclosure proceedings
- Allow users the ability to monitor and transact mortgage release activity
- Provide users the ability to maintain reference data
- Allow users the ability to access forms and reports
- Supply a series of wizards and bulk entry screens to input data with ease
- Accommodates multiple independent users simultaneously
- Support expansion and scalability as the system requirements and functionalities grow and change with the number of users of the system
- Accommodate scalability and expansion without degradation of service

Data is input into the **SMART** system by users creating individual records through a series of Wizards and general input screens (of manual entry screens). Additionally, bulk data can be imported into **SMART** as SAMS or TPS data. Data is output from the system to various screens and reports within the system. **SMART** also interfaces with the **Strategy** system to receive loan information.

5.1.1. System Interfaces

5.1.1.1. P013/FHASL Interface

SMART interfaces with the HUD P013 Interface Subsystem, a subsystem of the Federal Housing Administration Subsidiary Ledger System General Ledger (FHASL). Data is automatically extracted from both Strategy and **SMART** that updates FHASL and appropriate accounting reports to automate the posting of transactions in FHASL as well as facilitate the reconciliation of these transactions.

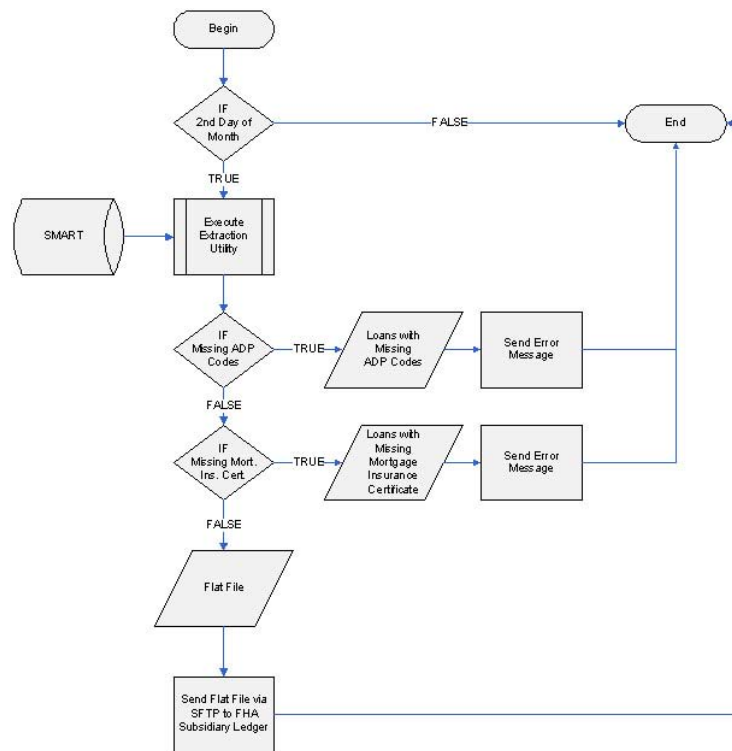


Figure 42. SMART-FHASL Interface Process Flow

5.1.1.2. Rēkon

Rēkon is a subsystem of **SMART** provided by Rēkon Technologies; it facilitates the release process by providing forms and reference data required by local land records offices and/or other respective authorities. When a release is initiated, a download process, which runs every fifteen (15) minutes with a seven (7) minute offset, checks for new releases. After finding the new release, it extracts the relevant data, and allows the output file created by this process to be uploaded into Rēkon. The process sends confirmation that a loan has properly loaded in Rēkon by sending a trigger based receipt record back to **SMART**.

The Rēkon database directly updates **SMART** upon the population of the Actual Completion Date for any release step with a counterpart in **SMART** in real time via trigger mechanisms.

Rēkon is already in use by CLS-MGC for many of the other loan portfolios in the Contract; however, the functionality has been customized for various loan types. Rēkon is only equipped to process one unique loan number, whereas **SMART** processes multiple loans per one loan number. The primary key in Rēkon is the

loan number where the primary key in **SMART** is the loan_key. Mapping the primary key in Rēkon to the **SMART** primary key has been programmed.

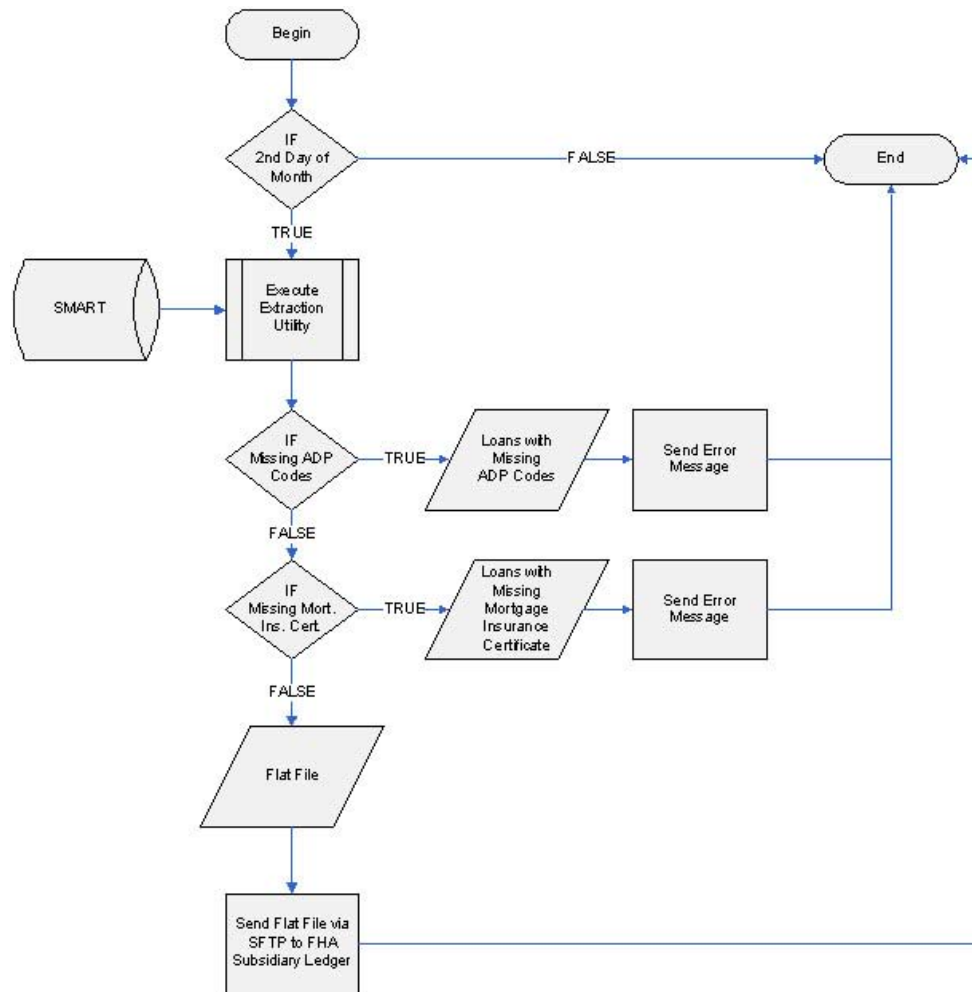


Figure 43. Rēkon Initial Release

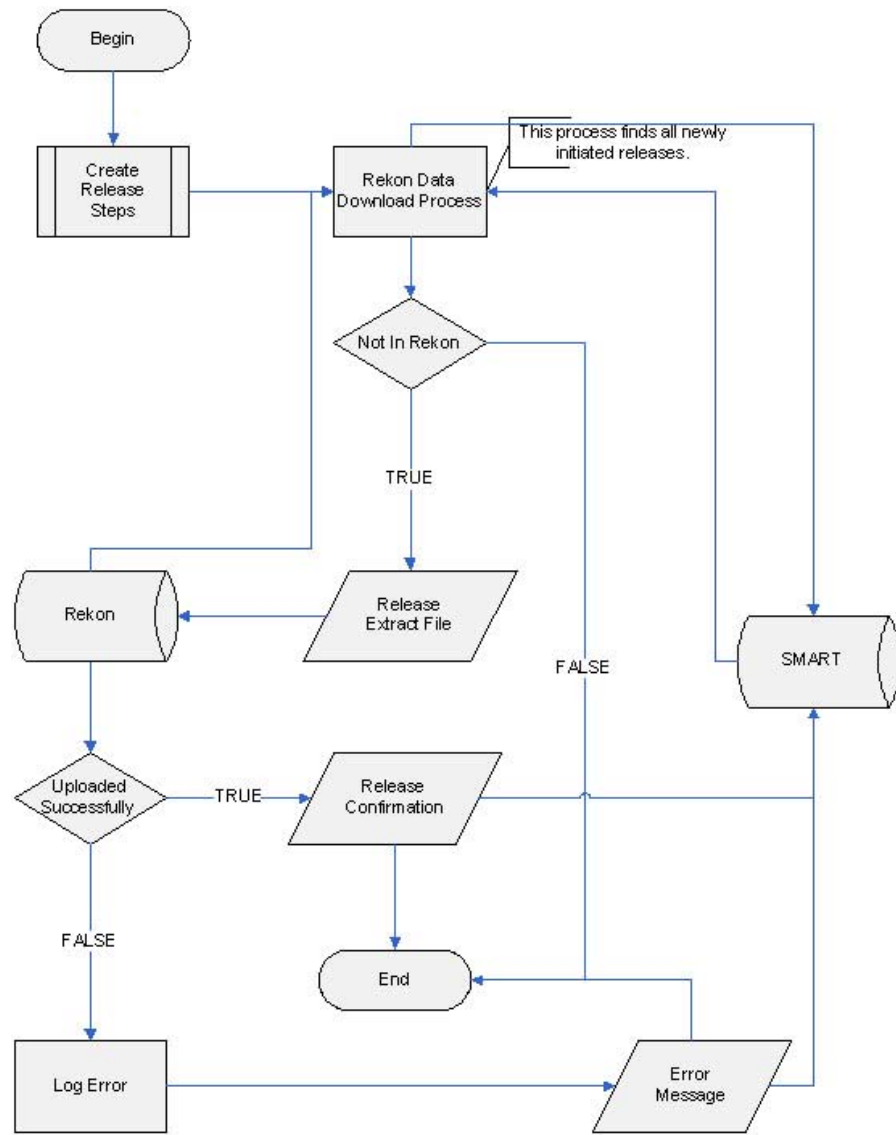


Figure 44. Release Change Step Status from Rēkon to SMART

5.2. System Functions

SMART is divided into the following modules:

- **Loan Inquiry**—Query and review loan information at a detailed level, add new loan records to the system and edit existing loan information.
- **Bankruptcy**—Maintain, track, and edit bankruptcy information for individual loan records.
- **Foreclosure**—Manage loan records in the foreclosure process. Provided a timeline of the required foreclosure steps and track the scheduled foreclosure activity against the actual dates for the completed foreclosure activity.
- **Mortgage Release**—Initiate the loan release process for satisfied loans, track the release status and generate the corresponding release forms and letters.

- **Servicing**—Assign mortgage servicing templates to individual loans, track the status of each servicing template and generate the corresponding forms and letters.
- **Maintenance**—Set user default preferences, change password and add new table entries.
- **Reports**—Access Batch, Foreclosure and Monthly/Weekly reports.
- **Customer Service**—Support customer service functions by tracking and controlling service calls. Each module handles a different aspect of the loan while interacting with the other modules. Each module of the system in **SMART** services the following loan programs:
 - 235—Insured
 - ACA—Compliance
 - ACA—Enforcement
 - ACA—Purchase Money Mortgage
 - HECM Insured
 - HECM Assigned
 - Nehemiah
 - Good Neighbor Next Door [GNND, formerly Officer/Teacher Next Door (OTND)]
 - Other
 - Partial Claim
 - Secretary Held

5.2.1. Servicing

The level of servicing varies, but can be summarized as follows:

- Full Servicing
 - Home Equity Conversion Mortgages (HECM) assigned to HUD
 - Secretary Held Loans/Purchase Money Mortgages (PMM)
 - 235 Assigned
- Compliance Note Servicing
 - Good Neighbor Next Door (GNND)
 - Asset Control Area (ACA) Compliance
 - ACA Enforcement
- Subordinate Note Servicing
 - Nehemiah
 - HECM Insured
 - 235 Insured
 - Partial Claim

5.2.1.1. Full Servicing

“Full servicing” manages the collections and complete servicing of the loans. It includes collection, generation of statements, forbearance agreements, bankruptcies (and the required filings), loan modifications,

verification of compliance with certain terms of the loan, et cetera and all efforts to service the loan and collect the debt.

5.2.1.2. Compliance Note Servicing

“Compliance Note Servicing” requires verification of compliance with the terms of the note and the release of the government lien once the required terms are met. Appropriate action must be taken if there is non-compliance with the terms of the loan and protection of the government’s interest in the case of a bankruptcy.

5.2.1.3. Subordinate Note Servicing

“Subordinate Note Servicing” is primarily custodial care of the records and providing a release when the loan is satisfied. These notes are normally a second trust on the property, and generally, funds are not collected until the note is paid in full.

5.3. Flexibility

SMART is a scalable and flexible application that allows for minor and major revisions and enhancements. By capitalizing on preexisting functionality within **SMART**, development, testing, and implementation should minimize normal time constraints due to familiarity.

Enhancements of **SMART** should allow for easy addition, deletion, or replacement of data input fields.

6.0 ENVIRONMENT

6.0 ENVIRONMENT

6.1. Equipment Environment

MGC employs state-of-the-art technology and enterprise architecture to support the **SMART** system. The computing infrastructure supporting this system consists of Windows Server 2003 Enterprise used to host file, backup, application, and database servers. enterprise grade firewalls and an intrusion detection system are used on all incoming data. SonicOS Standard 3.1 (SonicOS) and Firmware software are used as the firewall and an intrusion detection system. SonicOS includes the following software as well, Gateway Anti-Virus, Anti-Spying & Intrusion Prevention Services, E-Mail Filtering Service, and Premium Content Filtering Services. CLS-MGC has access 24 hours a day, 7 days a week to full technical support through our maintenance agreement.

The **SMART** MGC environment network architecture uses Cisco networking equipment. The Server operating system environments maintained include Windows 2003 supporting Microsoft SQL Server 2000 database. Support for these systems is provided through enhanced support and monitoring capabilities for these systems by deploying and maintaining a standard set of technology components for this system. The architecture also relies upon a number of redundant components, such as network hardware, power supplies, hard disk Redundant Array of Independent Disks (RAID) 5 technology, load balancing, and telecommunications circuits that maximize availability.

6.1.1. System Component Inventory

| Manufacturer | Model | CPU/RAM | Disk Configuration | Location/ Domain |
|--------------|----------------------------|---------------------------------|--|------------------|
| Dell | PowerEdge Server 2950 | (2) 2.33GHz Intel Xeon/4GB | C:16GB, D:119, E: 0GB | Lanham/HDQMGC |
| Dell | PowerEdge Server 2900 | (2) 2.00GHz Intel Xeon/4GB | C:16GB, D:132, E: 0GB | Lanham/HDQMGC |
| Dell | PowerEdge Server 800 | (2) 2.80GHz Intel Pentium 4/1GB | C:20.2GB, E:49.9GB G:698GB | Lanham/HDQMGC |
| Dell | PowerEdge Server 2950 | (8) 1.60GHz Intel Xeon/2GB | C:114GB, D: 0, E: 814GB | Tulsa/HDQMGC |
| Dell | Power Edge Server 2950 (2) | (8) 1.60GHz Intel Xeon/2GB | C:103GB, D: 103, E: 0GB, F: 1.6TB | Tulsa/HDQMGC |
| Dell | Power Edge Server 6800 | (4) 2.60GHz Intel Pentium D/4GB | C:68GB, D:0, E: 136GB, F: 409GB, G:546GB | Tulsa/HDQMGC |
| Dell | Power Edge Server R200 | (2) 3.00GHz Pentium 3/4GB | C:12GB, D:219GB, E: 0GB | Tulsa/HDQMGC |
| Dell | PowerEdge Server 2950 | (8) 2.00GHz Pentium 3/2GB | C:12GB, D:62GB, E: 0GB | Tulsa/HDQMGC |
| Dell | PowerEdge Server 860 | (1) 3.20GHz Pentium D/2GB | C:24GB, D:123, E: 0GB | Tulsa/HDQMGC |

| Manufacturer | Model | CPU/RAM | Disk Configuration | Location/ Domain |
|--------------|-------------------------|-----------------------------------|-----------------------------------|------------------|
| VMWARE | VMware Virtual Platform | (8) 1.60GHz Intel Xeon/4GB | C:68GB, D:68GB, E: 203GB, F:474MB | OGO/HDQMGC |
| VMWARE | VMware Virtual Platform | (4) 3.40GHz Intel Pentium D/512MB | C:8GB, D:565 | OGO/HDQMGC |
| VMWARE | VMware Virtual Platform | (4) 3.40GHz Intel Pentium D/512MB | C:8GB, D:0, E: 120GB, G:500GB | OGO/HDQMGC |

6.1.2. System Hardware Inventory

| Service Tag | Manufacture/System Type |
|-------------|--------------------------------|
| GKX62C1 | Dell Precision WorkStation 490 |
| HXLKYD1 | Dell Precision WorkStation 490 |
| 2YLKXD1 | Dell Precision WorkStation 490 |
| 5D83YB1 | Dell Precision WorkStation 490 |
| 80W2VB1 | Dimension 1100/B110 |
| 8W12B81 | Dimension 4700 |
| 5W12B81 | Dimension 4700 |
| 8P6WDC1 | OptiPlex 320 |
| G36W0F1 | OptiPlex 320 |
| J16W0F1 | OptiPlex 320 |
| 9J7V0F1 | OptiPlex 320 |
| F16W0F1 | OptiPlex 320 |
| 7HSW0F1 | OptiPlex 320 |
| DGSW0F1 | OptiPlex 320 |
| 4S8V0F1 | OptiPlex 320 |
| 3S8V0F1 | OptiPlex 320 |
| C16W0F1 | OptiPlex 320 |
| JKSW0F1 | OptiPlex 320 |
| 9LSW0F1 | OptiPlex 320 |
| 216W0F1 | OptiPlex 320 |
| 1KSW0F1 | OptiPlex 320 |
| HKSW0F1 | OptiPlex 320 |
| FMSW0F1 | OptiPlex 320 |
| DJSW0F1 | OptiPlex 320 |
| 2MSW0F1 | OptiPlex 320 |
| JR8V0F1 | OptiPlex 320 |
| BMSW0F1 | OptiPlex 320 |
| 6LSW0F1 | OptiPlex 320 |
| 3KSW0F1 | OptiPlex 320 |

| Service Tag | Manufacture/System Type |
|-------------|-------------------------|
| BJ7V0F1 | OptiPlex 320 |
| 426W0F1 | OptiPlex 320 |
| 926W0F1 | OptiPlex 320 |
| 3JSW0F1 | OptiPlex 320 |
| 836W0F1 | OptiPlex 320 |
| CJ7V0F1 | OptiPlex 320 |
| 536W0F1 | OptiPlex 320 |
| D26W0F1 | OptiPlex 320 |
| 126W0F1 | OptiPlex 320 |
| 1S8V0F1 | OptiPlex 320 |
| J36W0F1 | OptiPlex 320 |
| 5S8V0F1 | OptiPlex 320 |
| 6S8V0F1 | OptiPlex 320 |
| 2S8V0F1 | OptiPlex 320 |
| J26W0F1 | OptiPlex 320 |
| 5JSW0F1 | OptiPlex 320 |
| 2LSW0F1 | OptiPlex 320 |
| 6KSW0F1 | OptiPlex 320 |
| 7MSW0F1 | OptiPlex 320 |
| 9KSW0F1 | OptiPlex 320 |
| CKSW0F1 | OptiPlex 320 |
| 546W0F1 | OptiPlex 320 |
| GQNWHC1 | OptiPlex 320 |
| HQNWHC1 | OptiPlex 320 |
| 6XQ8WC1 | OptiPlex 320 |
| 8GSW0F1 | OptiPlex 320 |
| HHSW0F1 | OptiPlex 320 |
| HGSW0F1 | OptiPlex 320 |
| 4GSW0F1 | OptiPlex 320 |
| 8JSW0F1 | OptiPlex 320 |
| 2HSW0F1 | OptiPlex 320 |
| 1JSW0F1 | OptiPlex 320 |
| BP6WDC1 | OptiPlex 320 |
| H26W0F1 | OptiPlex 320 |
| 9P6WDC1 | OptiPlex 320 |
| 27JT0F1 | OptiPlex 745 |
| G6JT0F1 | OptiPlex 745 |
| J6JT0F1 | OptiPlex 745 |

| Service Tag | Manufacture/System Type |
|-------------|-------------------------|
| D6JT0F1 | OptiPlex 745 |
| 17JT0F1 | OptiPlex 745 |
| H6JT0F1 | OptiPlex 745 |
| F6JT0F1 | OptiPlex 745 |
| 37JT0F1 | OptiPlex 745 |
| HK8V0F1 | OptiPlex 745 |
| D5JFSB1 | PowerConnect 6248 |
| 86JFSB1 | PowerConnect 6248 |
| BJZ75C1 | PowerEdge 2900 |
| DDXQ0F1 | PowerEdge 2950 |
| CZ1R0F1 | PowerEdge 2950 |
| 4HXWHC1 | PowerEdge 2950 |
| 7V81JF1 | PowerEdge 2950 |
| F07B1F1 | PowerEdge 6800 |
| CN80981 | PowerEdge 800 |
| 4R9LMC1 | PowerEdge 860 |

6.1.3. Storage Media

Storage media includes hardware listed above and external media, including compact disks and 4mm Digital Audio Tape (DAT).

| Storage Media Disk Units | Size | Number |
|---|------|--------------------------------|
| PowerVault 220S | 3U | 14 HDD, SCSI Storage Enclosure |
| 146GB 15K RPM 80-pin SCSI U3203.5-in HotPlug Hard Drive | | (9) |

6.1.4. Input/Output Devices

6.1.4.1. Printers

| Printer | Location (TULSA) |
|--------------------|--------------------|
| Aficio BP20 Series | GUEST MANAGER |
| Aficio BP20 Series | Carlos Office |
| Aficio BP20 Series | Sha Terrell Office |
| RICOH SP4110N | Heather Office |
| RICOH SP4110N | Zena Office |
| RICOH SP4110N | Dino Office |
| Ricoh 2090 | Main Printer (Big) |

| Printer | Location (TULSA) |
|----------------------|---------------------------|
| Savin 4027 | Document Management Dept. |
| Sharp MX-2300N Color | Customer Service Dept. |
| Troy 4250 | Heather Office |
| Printer | Location (LANHAM) |
| Xerox Phaser 8500N | Copier Room |
| Canon IR 5000 | Copier Room |
| Lexmark E234n | Accounting Office |

| Output devices | Number Online/Offline |
|-----------------------------|-----------------------|
| Online-Aficio BP20 Series | (3) |
| Online-RICOH SP4110N | (3) |
| Online-Ricoh 2090 | (1) |
| Online-Troy 4250 | (1) |
| Online-Sharp MX-2300N Color | (1) |
| Online-Savin 4027 | (1) |

6.1.4.2. Scanners

| SCANNERS | Location (TULSA) |
|------------------|-------------------|
| Fujitsu fi 5900C | |
| Fujitsu fi 5650C | |
| SCANNERS | Location (LANHAM) |
| Canon IR 5000 | Copier Room |

6.2. Software Environment

MGC employs state-of-the-art technology and enterprise architecture to support the **SMART** system. The computing infrastructure supporting this system consists of Windows Server 2003 Enterprise used to host file, backup, application, and database servers. enterprise grade firewalls and an intrusion detection system are used on all incoming data. SonicOS Standard 3.1 (SonicOS) and firmware software comprise the firewall and the intrusion detection system. SonicOS includes the following software:

- Gateway Anti-Virus, Anti-Spying, & Intrusion Prevention services
- E-mail filtering service
- Premium content filtering services

CLS-MGC has access 24 hours a day, 7 days a week to full technical support through our maintenance agreement.

The **SMART** MGC environment network architecture uses Cisco networking equipment. The server operating system environments include Windows 2003 supporting the Microsoft SQL Server 2000 database.

Enhanced support for and monitoring of these systems are accomplished by deploying and maintaining a standard set of technology components. The architecture maximizes system availability through redundant technologies, including:

- Network hardware
- Power supplies
- Hard disk Redundant Array of Independent Disks (RAID) 5 technology
- Load balancing
- Telecommunications circuits

6.3. Communications Requirements

The **SMART** system generally relies on the MGC Local Area Network (LAN) and supporting infrastructure elements. Additionally, the system depends upon the network mesh, created by the BlueRidge devices in order for support services to be executed from the MGC Lanham office and interface with the disaster recovery center in Hagerstown, Maryland, Ongoing Operations, LLC (Ongoing). Moreover, a Virtual Private Network is required for end users and automated subsystems to interface with the HUD network. Finally, the Citrix Presentation Server is required to deliver the **SMART** system, a thick client server application, to end users at HUD, which are outside of the MGC LAN.

6.3.1. Communications Overview

Users may access **SMART** over a LAN or remotely through a Citrix application delivery infrastructure via an internet browser. The Citrix Presentation Server uses built in security mechanisms such as endpoint scans and policy controls. Both the network servers and local user machines all are equipped with virus scanning software with regular virus definition updates.

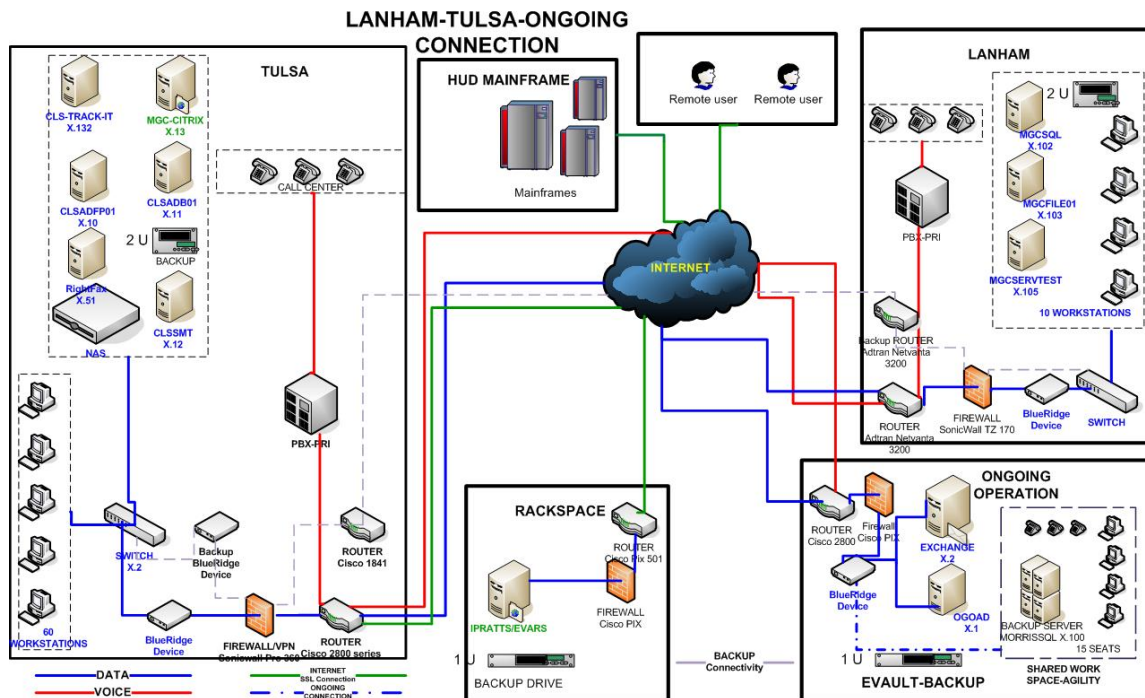


Figure 45. SMART Network Diagram

6.3.1.1. Network Architecture

The computing infrastructure supporting **SMART** consists of the items mentioned above as well as workstations with Microsoft Windows XP. All workstations are equipped with virus protection software that is regularly updated. Gateway Anti-Virus, Anti-Spying, and Intrusion Prevention services software is included with the SonicOS Enhanced software purchased for **SMART**.

Workstations implement a locking mechanism integrated into the Windows operating system. User accounts are locked after three (3) unsuccessful logon attempts. A locked-out account cannot be used until an administrator resets it. This is implemented through the Group Policy associated with the CLS-MGC Domain under the Active Directory and by local policy on each XP workstation. Workstations have a standard program application configuration. The user workstations are Dell Dimension 4700, Dell Precision 490, or Dell OptiPlex 320 or 745 PCs.

Access is provided to **SMART** over a LAN or remotely through a Citrix application delivery infrastructure via an internet browser. The Citrix Presentation Server uses built in security mechanisms such as endpoint scans and policy controls. The virus-scanning software installed on the network servers and local workstations is regularly updated with virus definition updates and software patches.

The network LAN and local edge connectivity and security are provided through a Dell Power Connect 6248 Layer-2 switch that routes specific application requests, such as Web content. Firewall technology is used to protect the MGC network and infrastructure from unauthorized access. The SonicWall PRO 360 and SonicWall TZ 170 firewall appliances with Gateway Anti-Virus, Anti-Spyware & Intrusion Prevention Services prevent Denial of Services (DoS) attacks, viruses, spyware, and encrypted attacks. Hardware encryption standards deployed for **SMART** include DES, Triple DES, AES, IKE, and auto-sensing (per device). Intrusion detection tools such as DoS attack prevention and deep packet inspection are used on the **SMART** system as well.

The Cisco Pix is a small enterprise security appliance firewall that provides VPN, SSL VPN, SSC/SSM, and built-in Intrusion Prevention capabilities. This Layer 2 and Layer 3 device is deployed in duplex for redundancy. The network connectivity infrastructure includes two Dell PowerConnect 6248 Layer 2 switches linking Dell Power Edge R200/860/6800 and 2900/2950 servers for enhanced performance and fail-over redundancy.

6.3.1.2. Interface Protocol

The standard interface protocol for **SMART** is the exchange of American Standard Code for Information Interchange (ASCII) files. Such exchange is made either via email or File Transfer Protocol (FTP).

6.3.2. Communications Hardware

Communications includes VPN tunnels to HUD using a SonicWall PRO 3060 as a Router and 2 T1 lines that serve as a communication conduit. BlueRidge devices are used to create a network mesh between the MGC Tulsa OK and Lanham MD offices and the disaster recovery facility in Frederick MD.

6.3.2.1. Network Device Inventory

| Manufacturer | Model | Description | Quantity |
|---------------------|--|-------------------|----------|
| Dell | (2) Dell PowerConnect 6248 | Network Switch | 2 |
| 3com | 3com Switch | Network Switch | 1 |
| APC | Smart UPS 2200 VA | Battery backup | |
| Dell | PowerVault 220S (SCSI) File Storage (Tulsa) | File Storage | 1 |
| Dell | PowerVault 124T (Autoloader) Tape Backup Drive (Tulsa) | Tape backup drive | 1 |
| SonicWall | SonicWall TZ170 (Lanham) | Firewall | 1 |
| SonicWall | SonicWall PRO 3060 (Firewall Tulsa) | Firewall | 1 |
| Blue Ridge Networks | Blue Ridge Device (Lanham/Tulsa/Hagerstown) | VPN | 3 |
| CDW | Smart XL UPS 3000 VA/(2) 48V Extended Run Battery | Battery backup | |
| CDW | APC Back-UPS ES 700 - UPS - 405 Watt - 700 VA | Battery backup | 62 |
| Cisco | Cisco Pix (Rackspace) | Firewall | 1 |

6.4. Interfaces

The **SMART** system interfaces with each of these external component systems:

6.4.1. CHUMS

6.4.1.1. Processing Schedule and Delivery Data

| Description | File Name | Interface File Delivery Frequency and Schedule | Environment | File Delivery Point |
|----------------------|-----------|--|-------------|---------------------|
| CHUMS Interface File | *.TXT | Weekly | Production | Email |

6.4.1.2. Format Requirements

| Description | File Name | File Type | Media | Fixed Length or Delimited |
|-------------|-----------|-----------|------------|---------------------------|
| CHUMS | *.TXT | Flat | Disk Drive | Fixed Length |

6.4.1.3. Detail Record Layout

| Serial No. | Field Name | Character Length | Position |
|--------------|------------------------|------------------|----------|
| Row 1 | | | |
| D1. | Filler | 5 | 1-5 |
| D2. | FHA Case Number | 10 | 6-15 |
| D3. | Endorsement Date | 8 | 16-23 |
| D4. | Initial Fee Amount | 7 | 24-30 |
| D5. | Status Code | 2 | 31-32 |
| D6. | Transaction Date | 8 | 33-40 |
| D7. | Expected Interest Rate | 5 | 41-45 |
| D8. | Prior Case Number | 10 | 46-55 |
| Row 2 | | | |
| D9. | Filler | 18 | 1-18 |
| D10. | Address Line 1 | 35 | 19-53 |
| D11. | Address Line 2 | 6 | 54-59 |
| Row 3 | | | |
| D12. | Filler | 18 | 1-18 |
| D13. | City | 19 | 19-38 |
| D14. | State | 2 | 39-40 |
| D15. | Zip Code | 9 | 41-49 |
| D16. | Appraisal Amount | 6 | 50-55 |
| D17. | Maximum Claim Amount | 6 | 56-62 |
| D18. | Premium Amount | 7 | 63-69 |
| Row 4 | | | |
| D19. | Filler | 18 | 1-18 |
| D20. | Payment Plan | 1 | 19 |

| Serial No. | Field Name | Character Length | Position |
|--------------|------------------------------------|------------------|----------|
| D21. | Program ID | 2 | 20-21 |
| D22. | Principal Limit | 7 | 22-28 |
| D23. | Term in Months | 3 | 29-31 |
| D24. | Interest Rate | 5 | 32-36 |
| D25. | Cap | 5 | 37-41 |
| D26. | Closing Date | 8 | 42-49 |
| D27. | MIC Issue Date | 8 | 50-57 |
| D28. | Margin Rate | 4 | 58-61 |
| Row 5 | | | |
| D29. | Filler | 18 | 1-18 |
| D30. | Borrower Birth Date | 8 | 19-26 |
| D31. | Borrower Name | 22 | 27-49 |
| D32. | Borrower Social Security Number | 9 | 50-58 |
| Row 6 | | | |
| D33. | Filler | 18 | 1-18 |
| D34. | Co-Borrower Birth Date | 8 | 19-26 |
| D35. | Co-Borrower Name | 22 | 27-49 |
| D36. | Co-Borrower Social Security Number | 9 | 50-58 |

6.4.2. Lexis/Nexis BANKO

6.4.2.1. Processing Schedule & Delivery Data

| Description | File Name | Interface File Delivery Frequency and Schedule | Environment | File Delivery Point |
|-------------|-------------|--|-------------|---------------------|
| Banko file | *.in1/*.de1 | Monthly | Production | Email |

6.4.2.2. Format Requirements

| Description | File Name | File Type | Media | Fixed Length or Delimited |
|-------------|-------------|-----------|------------|--|
| Banko file | *.in1/*.de1 | Flat | Disk Drive | CSV (double quote and comma delimited) |

6.4.2.3. Detail Record Layout

| Serial No. | Field Name | Max Character Length | Position |
|------------|----------------------|----------------------|----------|
| D1. | Loan number | 15 | |
| D2. | Borrower First Name | 15 | |
| D3. | Borrower Middle Name | 10 | |
| D4. | Borrower Last Name | 25 | |

| Serial No. | Field Name | Max Character Length | Position |
|------------|------------------------|----------------------|----------|
| D5. | Suffix | 1 | |
| D6. | Social Security Number | 9 | |
| D7. | Address | 32 | |
| D8. | City | 30 | |
| D9. | State | 2 | |
| D10. | Zip | 10 | |
| D11. | Client | 8 | |
| D12. | Agreement Date | 8 | |
| D13. | Product Code | 2 | |

6.4.3. Strategy

Strategy data is loaded directly into the staging tables in the **SMART** system specified in the subsections below.

| Description | File Name | Interface File Delivery Frequency and Schedule | Environment | Delivery Point |
|-------------------------------|-----------|--|-------------|----------------|
| Strategy (DAT-A and DAT-B) | | Daily | Production | Direct |

6.4.3.1. PCIF

| Name | Data Type |
|----------------------|-----------|
| Loan_no | Text(15) |
| Fname_primary | Text(20) |
| Lname_primary | Text(30) |
| Fname_secondary | Text(20) |
| Lname_secondary | Text(30) |
| Primary_street_addr | Text(40) |
| Primary_street_addr2 | Text(40) |
| Primary_city_state | Text(40) |
| Primary_city | Text(40) |
| Primary_state | Text(2) |
| Primary_zip | Text(9) |
| Primary_ssn | Text(9) |
| Primary_phone | Text(11) |
| Secondary_ssn | Text(9) |
| Secondary_phone | Text(11) |
| Loan_program_skey | smallint |

| Name | Data Type |
|---------------|-----------|
| Borrower_skey | int |
| Loan_skey_2 | int |

6.4.3.2. PMASTER

| Name | Data Type |
|------------------------|-----------|
| Fha_case_no | Text(12) |
| Tax_id_verified | Text(1) |
| First_delinq_notice | Text(10) |
| Loan_no | Text(15) |
| Branch_code | Text(2) |
| Officer_code | Text(2) |
| Orig_prin_bal | money |
| Orig_loan_date | Text(10) |
| Loan_term | Text(4) |
| Pay_type_code | Text(1) |
| Contract_type_code | Text(1) |
| Int_rate | money |
| Accrual_method | Text(3) |
| Unpaid_prin_bal | money |
| Tax_escrow_bal | money |
| Ferrell2m_bal | money |
| Serv_fee_bal | money |
| Int_tax_bal | money |
| Susp_escrow_bal | money |
| Late_charge_bal | money |
| Monthly_prin_amt | money |
| Monthly_tax_escrow_amt | money |
| Monthly_ferrell2m_amt | money |
| Monthly_serv_fee_amt | money |
| Monthly_int_tax_amt | money |
| Collect_tax_escrow | Text(1) |
| Collect_insur_escrow | Text(1) |
| Next_escrow_anal_date | Text(10) |
| Escrow_anal_freq | smallint |
| Next_pay_due_date | Text(10) |
| Hold_code_1 | Text(1) |
| Hold_code_2 | Text(1) |
| Hold_code_3 | Text(1) |

| Name | Data Type |
|----------------------------|-----------|
| Print_bills | Text(1) |
| Print_notices | Text(1) |
| Print_statements | Text(1) |
| Prin_paid_ytd | money |
| Int_paid_ytd | money |
| Late_charge_paid_ytd | money |
| Real_est_tax_paid_ytd | money |
| Times_late_ytd | smallint |
| Times_late_total | smallint |
| Balloon_loan | Text(1) |
| Assess_late_charge | Text(1) |
| No_days_to_delinq | int |
| Late_charge_rate | money |
| Late_charge_type | Text(1) |
| Last_trans_date | Text(10) |
| Loan_purpose_code | Text(2) |
| Loan_class_code | Text(2) |
| Prin_disbursed_bal | money |
| Maturity_date | Text(10) |
| Active_status_code | Text(1) |
| Deposit_acct_no | Text(25) |
| GI_code | Text(1) |
| Loan_type | Text(1) |
| Payment_status_code | Text(2) |
| Loan_status_1 | Text(10) |
| Loan_status_2 | Text(2) |
| Cost_center | Text(4) |
| No_payments_delinq | smallint |
| Receivable_amt_due_bal | money |
| First_pay_date | Text(10) |
| Payoff_date | Text(10) |
| Insur_damage_bal | money |
| Trouble_debt_restruct | Text(1) |
| GI_matrix | Text(10) |
| Contract_next_pay_due_date | Text(10) |
| Forebearance_agreement | Text(1) |
| Review_date | Text(10) |
| Pay_application_code | Text(3) |

| Name | Data Type |
|--------------------|-----------|
| Due_date_delinq_nc | Text(10) |
| Loan_program_skey | int |
| Loan_skey_2 | int |
| Loan_status | Text(6) |

64.3.3. PNOTES

| Name | Data Type |
|-------------------|-----------|
| Loan_no | Text(15) |
| Note_type | int |
| Note_text | Text(%n) |
| Ref_no | Text(30) |
| Note_date | Text(10) |
| Loan_program_skey | smallint |
| Loan_skey_2 | int |
| Note_skey | int |

64.3.4. PTRANS

| Name | Data Type |
|---------------------|-----------|
| Loan_no | Text(15) |
| Trans_date | Text(10) |
| Trans_code | Text(2) |
| Tot_abs_trans_amt | money |
| Principal_amt | money |
| Int_amt | money |
| Misc_amt | money |
| Tax_escrow_amt | money |
| Fire_escrow_amt | money |
| Escrow3_amt | money |
| Seq_no | int |
| Suspense_escrow_amt | money |
| Late_charge_amt | money |
| Principal_bal | money |
| Batch_id | Text(1) |
| Batch_loan_class | Text(2) |
| Batch_no | int |
| Next_pay_due_date | Text(10) |
| Last_trans_date | Text(10) |

| Name | Data Type |
|-----------------------|-----------|
| Gl_no | smallint |
| Pay_reverse_post_code | Text(1) |
| Disburse_type_code | Text(2) |
| Vendor_no | Text(4) |
| Create_user_id | Text(16) |
| Pay_due_date | Text(10) |
| Check_no | int |
| Trans_sub_code | Text(2) |
| Ret_check_trans_code | Text(2) |
| Ret_check_trans_date | Text(10) |
| Effective_back_date | Text(10) |
| Suspense_no | smallint |
| Suspense_seq_no | smallint |
| Rdn_code | Text(1) |
| Note_attached | Text(1) |
| Misc_amt_code | Text(3) |
| Reverse_next_pay_date | Text(10) |
| Escrow4_amt | money |
| Escrow5_amt | money |
| Int_from_date | Text(10) |
| Int_to_date | Text(10) |
| Loan_program_skey | smallint |
| Loan_trans_skey | int |
| Loan_skey_2 | int |

6.4.4. Rēkon2000

Rēkon2000, or simply Rēkon, is a Commercial off the Shelf Product (COTS) provided by Rēkon Technologies. The system is used to increase the accuracy and efficiency of the releases handled by users of the **SMART** system. The vendor has provided complete documentation of the Rēkon system and there is a custom component that has been developed to exchange data with **SMART**. The data sharing mechanism is driven by two DTS packages and a set of Java classes used to extract and load data via flat file between the two systems.

6.4.4.1. Download

6.4.4.1.1. Processing Schedule & Delivery Data

| Description | File Name | Interface File Delivery Frequency and Schedule | Environment | File Delivery Point |
|---|-----------|---|-------------|--|
| Rēkon file with releases extracted from SMART | *.TXT | Every 15 minutes on business days between 7:00 and 19:00 CT | Production | The folder \\CLSSMT\Applications\Rekon - Production\upload_download\download |

6.4.4.1.2. Format Requirements

| Description | File Name | File Type | Media | Fixed Length or Delimited |
|---|-----------|-----------|------------|--|
| Rēkon file with releases extracted from SMART | *.TXT | Flat | Disk Drive | CSV (double quote and comma delimited) |

6.4.4.1.3. Detail Record Layout

| Serial No. | Field Name | Max Character Length | Position |
|------------|---|----------------------|----------|
| D1. | Loan number | 8 | |
| D2. | Pay-Off Date | 8 | |
| D3. | Original Dollar Amount of Loan | 17 | |
| D4. | Property Address | 100 | |
| D5. | Property City | 50 | |
| D6. | Property State | 2 | |
| D7. | Property Zip | 10 | |
| D8. | Property County | 30 | |
| D9. | Property Tax ID/APN | 50 | |
| D10. | Original Mortgage/Deed Instrument No | 50 | |
| D11. | Original Mortgage/Deed Book | 50 | |
| D12. | Original Mortgage/Deed Page | 50 | |
| D13. | Original Mortgage/Deed Recorded Date | 8 | |
| D14. | Origination Date | 8 | |
| D15. | Current Borrower's First Name | 50 | |
| D16. | Current Borrower's Last Name | 50 | |
| D17. | Current Borrower's Mailing Address Line 1 | 50 | |
| D18. | Current Borrower's Mailing Address Line 2 | 50 | |

| Serial No. | Field Name | Max Character Length | Position |
|------------|----------------------------------|----------------------|----------|
| D19. | Current Borrower's Mailing City | 50 | |
| D20. | Current Borrower's Mailing State | 2 | |
| D21. | Current Borrower's Mailing Zip | 10 | |
| D22. | FHA Number | 20 | |
| D23. | Legal Description | 254 | |
| D24. | Current Trustee Name | 254 | |
| D25. | Original Trustee Name | 254 | |

6.4.4.2. Upload

6.4.4.2.1. Processing Schedule & Delivery Data

| Description | File Name | Interface File Delivery Frequency and Schedule | Environment | File Delivery Point |
|---|------------|---|-------------|--|
| Rēkon file with releases extracted from SMART | * to *.00n | Every 15 minutes on business days between 7:00 and 19:00 CT | Production | The folder \\CLSSMT\Applications\Rekon - Production\upload_download\upload |

6.4.4.2.2. Format Requirements

| Description | File Name | File Type | Media | Fixed Length or Delimited |
|---|------------|-----------|------------|--|
| Rēkon file with releases extracted from SMART | * to *.00n | Flat | Disk Drive | CSV (double quote and comma delimited) |

6.4.4.2.3. Detail Record Layout

| Serial No. | Field Name | Max Character Length | Position |
|------------|-----------------------|----------------------|----------|
| D1. | Loan number | | |
| D2. | Status/Steps | | |
| D3. | Status Date | | |
| D4. | Rekon County Code | | |
| D5. | Send To | | |
| D6. | Checks Amount | | |
| D7. | Checks Payee Name | | |
| D8. | Checks Payee Address1 | | |
| D9. | Checks Payee Address2 | | |
| D10. | Checks Payee City | | |

| Serial No. | Field Name | Max Character Length | Position |
|------------|-----------------------|----------------------|----------|
| D11. | Checks Payee State | | |
| D12. | Checks Payee Zip | | |
| D13. | Checks Void Indicator | | |
| D25. | Original Trustee Name | | |

6.4.5. Wachovia Positive Pay

The Wachovia Positive Pay Subsystem (WPPS) is used to assist with the periodic bank reconciliation of the accounts associated with **SMART**. Specifically these accounts pertain to the Home Equity Conversion Mortgage portfolio disbursements, loan release transactions for all portfolios and certain disbursements related to loans in the HUD Strategy system.

6.4.5.1. Processing Schedule and Delivery Data

| Description | File Name | Interface File Delivery Frequency and Schedule | Environment | File Delivery Point |
|-------------|-----------------------------------|--|-------------|---------------------|
| WPPS | [6 digit account identifier].PROD | Monthly | Production | SFTP |

6.4.5.2. Format Requirements

| Description | File Name | File Type | Media | Fixed Length or Delimited |
|-------------|-----------------------------------|-----------|------------|---|
| WPPS | [6 digit account identifier].PROD | Flat | Disk Drive | Fixed Length, Zero Filled (except as noted) |

6.4.5.3. Header Record Layout

| Field Name | Character Length | Position |
|--------------------------|------------------|----------|
| Record ID | 2 | 1-2 |
| Constant 1 ("WACH ACCT") | 10 | 3-12 |
| Account Number | 13 | 13-25 |
| Constant 2 ("AS OF") | 8 | 26-33 |
| As of Date (YYYYMMDD) | 8 | 34-41 |
| Blank Filler | 54 | 42-95 |

6.4.5.4. Detail Record Layout

| Field Name | Character Length | Position |
|--------------------------------------|------------------|----------|
| Account Number | 13 | 1-13 |
| Check Serial/Deposit Location Number | 10 | 14-23 |

| Field Name | Character Length | Position |
|---|------------------|----------|
| Check/Deposit Amount (without decimal) | 10 | 24-33 |
| Paid/Misc Debit Date (YYYYMMDD) | 8 | 34-41 |
| Transaction Indicators ("R" Recon./Paid, "S" stop or "V" void | 1 | 42 |
| Issue/Deposit Date | 8 | 43-50 |
| Payee Name | 30 | 51-80 |
| Blank Filler | 15 | 81-95 |

6.4.5.5. Trailer Record Layout

| Field Name | Character Length | Position |
|---------------------------|------------------|----------|
| Record ID ("TR") | 2 | 1-2 |
| Constant ("TOTALS FOR") | 10 | 3-12 |
| Account Number | 13 | 13-25 |
| As of Date (YYYYMMDD) | 8 | 26-33 |
| Total Paid/Deposit Amount | 12 | 34-45 |
| Total Paid/Deposit Count | 10 | 46-55 |
| Blank Filler | 40 | 56-95 |

6.4.6. WPPS Upload

6.4.6.1. Processing Schedule and Delivery Data

| Description | File Name | Interface File Delivery Frequency and Schedule | Environment | File Delivery Point |
|-------------|---|--|-------------|------------------------|
| WPPS | [last 4 digits of account number + datetime (YYMMDDHHMMSS)].txt | Daily | Production | SFTP |

6.4.6.2. Format Requirements

| Description | File Name | File Type | Media | Fixed Length or Delimited |
|-------------|-----------|-----------|------------|---|
| WPPS | *.txt | Flat | Disk Drive | Fixed Length, Zero Filled (except as noted) |

6.4.6.3. Header Record Layout

| Field Name | Character Length | Position |
|-----------------------------------|------------------|----------|
| Constant ("RECONCILIATIONHEADER") | 20 | 1-20 |
| Bank Number ("0052") | 4 | 21-24 |
| Account Number | 13 | 25-37 |

| Field Name | Character Length | Position |
|-----------------------------|------------------|----------|
| Total Dollar Amount of File | 12 | 26-33 |
| Total Item Count of File | 5 | 50-54 |
| Blank Filler | 26 | 55-80 |

6.4.6.4. Detail Record Layout

| Field Name | Character Length | Position |
|--------------------------------------|------------------|----------|
| Account Number | 13 | 1-13 |
| Check Number | 10 | 14-23 |
| Check Amount (without decimal) | 10 | 24-33 |
| Issue Date (YYYYMMDD) | 8 | 34-41 |
| Void Indicator ("V" otherwise blank) | 1 | 42 |
| Payee Name | 30 | 43-72 |
| Blank Filler | 8 | 73-95 |

6.4.7. Single Family Acquired Asset Management System (SAMS)

6.4.7.1. Processing Schedule & Delivery Data

| Description | File Name | Interface File Delivery Frequency and Schedule | Environment | File Delivery Point |
|-------------|-----------|--|-------------|---------------------|
| SAMS | *.XLS | Monthly | Production | Email |

6.4.7.2. Format Requirements

| Description | File Name | File Type | Media | Fixed Length or Delimited |
|-------------|-----------|-----------|------------|--|
| SAMS | *.XLS | Flat | Disk Drive | CSV (double quote and comma delimited) |

6.4.7.3. Detail Record Layout

| Serial No. | Field Name | Character Length | Position |
|------------|------------------|------------------|----------|
| D1. | Case Number | | |
| D2. | HUD Office | | |
| D3. | NAID | | |
| D4. | Property Address | | |
| D5. | City | | |
| D6. | State | | |
| D7. | ZIP Code | | |
| D8. | Closed | | |

| Serial No. | Field Name | Character Length | Position |
|------------|-----------------------|------------------|----------|
| D9. | Reconciled | | |
| D10. | Government/Non-Profit | | |
| D11. | Bid Amount | | |
| D12. | List Price | | |
| D13. | Sales Proceeds | | |
| D14. | Net Bid Amount | | |
| D15. | Bid Disc Perc | | |
| D16. | Bid Disc Net | | |
| D17. | Sales Type | | |
| D18. | SSNFIN1 | | |
| D19. | Purchaser 1 | | |
| D20. | SSNFIN2 | | |
| D21. | Purchaser 2 | | |

6.4.8. Tax Payment Services (TPS)

6.4.8.1. Processing Schedule & Delivery Data

| Description | File Name | Interface File Delivery Frequency and Schedule | Environment | File Delivery Point |
|-------------|-----------|--|-------------|---------------------|
| TPS | *.TXT | Daily | Production | Email |

6.4.8.2. Format Requirements

| Description | File Name | File Type | Media | Fixed Length or Delimited |
|-------------|-----------|-----------|------------|---------------------------|
| TPS | *.TXT | Flat | Disk Drive | Tab Delimited |

6.4.8.3. Detail Record Layout

| Serial No. | Field Name | Character Length | Position |
|------------|-------------|------------------|----------|
| D1. | Loan Number | | |

6.4.9. Federal Housing Administration Subsidiary Ledger (FHASL)

General system interfaces and supporting functionality exist within the overall framework of the **SMART** system. Although most interface data comes into the **SMART** system via a manual upload process, data is transmitted to the General Ledger Division of HUD, Federal Housing Administration Subsidiary Ledger (FHASL). This component is a standalone subsystem with the **SMART** framework.

6.4.9.1. Processing Schedule & Delivery Data

| Description | File Name | Interface File Delivery Frequency and Schedule | Environment | File Delivery Point |
|--|--|--|-------------|---|
| Home Equity Notes Application FHASL Interface File | 80YYYYMMDD.DAT 80H = constant = System ID | Monthly: 2nd business day of the month at 11 AM eastern time | Production | The folder e:\dataxfer\fhfa\input on the server HWVANAP301 at HUD |

6.4.9.2. Format Requirements

| Description | File Name | File Type | Media | Fixed Length or Delimited |
|----------------------------------|--|-----------|------------|---------------------------|
| Home Equity Conversion Mortgages | 80YYYYMMDD.dat (80H = constant = System ID) | Flat | Disk Drive | Fixed Length |

6.4.9.3. Header/Record Output

| Serial No. | Field Name | Character Length | Position |
|------------|--|------------------|----------|
| H1. | P13C-SYSTEM-ID (System ID) | 4 | 16-19 |
| H2. | P13C3-TRANS-CODE | 2 | 14-15 |
| H3. | P13C-ACCOUNTING-PERIOD (Accounting Period for transactions) | 6 | 26-31 |
| H4. | P13C3-HDR-TRANS-TYPE (Record Type) | 1 | 173 |
| H5. | P13C3-DATETIME-STAMP (Run time date/time stamp) | 15 | 174-188 |

6.4.9.4. Detail Record Layout

| Serial No. | Field Name | Character Length | Position |
|------------|----------------------------|------------------|----------|
| D1. | Case Number | 12 | 1-12 |
| D2. | Case Status Code | 1 | 13 |
| D3. | Transaction Code | 2 | 14-15 |
| D4. | System Name | 10 | 16-25 |
| D5. | Accounting Period (YYYYMM) | 6 | 26-31 |
| D6. | Accounting Period FY | 4 | 31-34 |
| D7. | Accounting Period FM | 2 | 34-35 |
| D8. | Cohort | 4 | 35-38 |
| D9. | Fund Code (G/M) | 1 | 39 |

| Serial No. | Field Name | Character Length | Position |
|------------|------------------------------|------------------|----------|
| D10. | Fund Type (F/L)* | 1 | 40 |
| D11. | Risk Category Code | 4 | 41-44 |
| D12. | Vendor ID | 1 | 45 |
| D13. | Transaction Amount | 15 | 46-60 |
| D14. | Treasury Schedule Number | 11 | 61-71 |
| D15. | SOA/ADP Code (Num / Alpha) | 7 | 72-78 |
| D16. | Hawaiian Homelands Indicator | 1 | 79 |
| D17. | Mortgagee ID | 10 | 80-89 |
| D18. | Cohort Date | 10 | 90-99 |
| D19. | Transaction Effective Date | 10 | 100-109 |
| D20. | Accounting Event Code | 10 | 110-119 |
| D21. | General Ledger Debit number | 10 | 120-129 |
| D22. | General Ledger Credit number | 10 | 130-139 |
| D23. | System Record Key | 20 | 140-159 |
| D24. | Date Processed | 10 | 160-169 |
| D25. | Record Type | 1 | 170 |
| D26. | System Date-Time Stamp | 15 | 171-185 |
| D27. | Sequence number | 8 | 186-193 |
| D28. | Activity Type | 5 | 194-198 |

64.9.5. Trailer Record Layout

| Serial No. | Field Name | Character Length | Position |
|------------|---|------------------|----------|
| T1. | P13C-TOTAL-AMOUNT (Total of "Amount" Field, Set to "000000000000.00") | 18 | 49-63 |
| T2. | P13C-TRLR-TRANS-TYPE (Record Type) | 1 | 173 |
| T3. | P13C-TOTAL-TRANS-COUNT (detail records count) | 8 | 189-196 |

6.5. Summary of Impacts

6.5.1. Organizational Impacts

Developers are required to:

- Write code for the programming requirements for new loan program
- Assist with testing to assure the efficiency and accuracy
- Correct any potential failed processes

- Implement and release the final approved enhancements into the production environment
- Provide maintenance if and when needed

The MGC Information Technology (IT) team meets weekly to discuss and determine where assistance can be provided to facilitate and expedite the development of this new loan program.

No changes in IT staffing level or location are required.

6.5.2. Operational Impacts

The impact on the operational procedures of the information processing centers is minimized. Prior to implementation into the **SMART** Production Environment, all enhancements, modifications, releases, updates, etc. are tested in the **SMART** Test Environment, also known as Beta to prevent disruption in the actual Production environment that the Servicing staff use Monday through Friday from 7:00 A.M.–7:00 P.M. (Central Time).

The Beta environment simulates the actual conditions of the Production environment, providing a testing ground to identify any discrepancies or failed processes without affecting real loan data. Failed or potentially failed processes are corrected in the Development environment and deployed and retested in the Beta environment prior to release into Production. Testers include those on the IT team and actual **SMART** users, both at CLS-MGC and HUD when applicable.

A proposed test plan is submitted to the GTR for approval before testing can begin. A test plan also requires approval from the respective managers within CLS-MGC. Upon receipt of approval of the Test Plan, the testers execute it. After successful testing, the release proposal is submitted to GTR for review and approval. GTR authorization is required before any change, modification, or enhancement is released into the Production environment.

6.5.3. IS Developmental Impacts

The system is designed, developed, tested, deployed, and maintained by developers at CLS-MGC.

Development is performed in the **SMART** Development environment located in Lanham, MD. This environment is used for preliminary testing of configuration values for new requirements as well as initial unit testing of **SMART** system software changes. This environment is also configured to test software patches before migration into the Production Environment.

6.6. Failure Contingencies

Ongoing is an external vendor that provides off-site storage for encrypted media. The system backup procedure for the **SMART** system is an automated process.

6.6.1. Daily Procedure

This process is automated.

- The software used by CLS-MGC (Symantec Backup Exec) performs a daily differential backup
- Five (5) backup tapes are allocated for this process (from Tuesday to Saturday) located in Slots 1–5

- The tapes are overwritten when full

6.6.2. Weekly Procedure

This process is automated.

- The software used by CLS-MGC (Symantec Backup Exec) performs a weekly full backup
- One (1) backup tape allocated for this process (on Sunday) located in the Slot 6
- The tape is overwritten when full
- The IT staff in Tulsa, OK perform a full weekly backup of the **SMART** database using the backup utility provided by SQL SERVER
- Copies are saved locally on the **SMART** server under (F:\SQL Backup)

6.6.2.1. Monthly Procedure

This process is automated.

- The software used by CLS-MGC (Symantec Backup Exec) performs a monthly full backup
- One (1) backup tape is allocated for this process (first day of the month
 - If there is a start time conflict, monthly full backup supersedes weekly full backup) located in the slot 7
- This tape is overwritten every month
- The IT staff in Tulsa, OK perform a full monthly backup of the **SMART** database using the backup utility provided by SQL SERVER
- Copies are saved locally on the **SMART** server under (F:\SQL Backup).

6.6.3. Offsite Backup Procedure

The offsite backup is stored encrypted to a secure data center and transmitted to the EVault server nightly via the network mesh established with the Ongoing Operations facility in Hagerstown, MD.

6.6.4. Restart/Recovery

Daily backup of the system provide restart/recovery capabilities and data in the event of a failure. CLS-MGC also provides a redundant T-1 line to prevent excess expenditures for a minor event that would prevent HUD users from accessing the **SMART** system and Ongoing from the daily backups.

6.6.5. Other Contingencies

System data is backed up daily both onsite and at Ongoing. Data backups are stored, both onsite and offsite, in a secure disaster recovery facility with safeguards in place to reduce or eliminate the threat of loss due to fire, water, or other circumstance.

6.7. Assumptions and Constraints

SMART is a scalable and flexible application which allows for minor and major revisions and enhancements. Current and future development of **SMART** remains within the general parameters and conventions of the existing/legacy design, unless otherwise deemed necessary.

7.0 SECURITY

7.0 SECURITY

The security architecture of **SMART** is designed to protect the information stored in the database subsystem and their transactions according to the security and privacy requirements. **SMART** operates within the security architecture of MGC and prevents access by unauthorized users. (See the **SMART System Security Plan**.)

7.1. Background Information

SMART is accessible through an executable file available across a Citrix connection. Users is required to login with a unique login and password. The system tracks new database records by tracking the changing user and the date of the change.

7.2. Control Points, Vulnerabilities, and Safeguards

7.2.1. Control Points

7.2.1.1. Network Perimeter

A control point is provided around the network perimeter of the infrastructure supporting the **SMART** system.

7.2.1.2. Access Model

Users may access **SMART** over a LAN or remotely through a Citrix application delivery infrastructure via an internet browser. The Citrix Presentation Server uses built in security mechanisms such as endpoint scans and policy controls. Both the network servers and local user machines all are equipped with virus scanning software with regular virus definition updates.

7.2.1.3. Input Control Points

7.2.1.3.1. Origin

Data is entered into **SMART** by individual users.

7.2.1.3.2. Data Entry

The **SMART** system is used to perform data entry functions.

7.2.1.3.3. Disposition

Error correction is handled on the front end by forcing users to enter data into input masks and the use of reference tables to populate data in drop-down menus and list boxes.

7.2.1.4. Process Control Points

7.2.1.4.1. Accuracy and Completeness

SMART provides notification in the event of a failure during processing upon the user's submission of information into the system

7.2.1.4.2. System Interfaces

The **SMART** system interfaces with each of these external component systems:

- Strategy
- Rēkon
- Wachovia Positive Pay
- Computerized Homes Underwriting Management (CHUMS)
- Single Family Insurance System
- Single Family Acquired Asset Management System (SAMS)
- First American Real Estate Tax Service (FARETS)
- Federal Housing Administration Subsidiary Ledger (FHASL)
- LexisNexis/BANKO

7.2.1.5. Output Control Points

7.2.1.5.1. Production

Devices used to receive data include user workstations and printers. Data are exported to the following systems:

- HUD Federal Housing Administration Subsidiary Ledger (FHASL)
- Lexis/Nexis BANKO—a public records database for bankruptcies

7.2.1.5.2. Distribution

SMART is distributed through the stand-alone client/server application.

7.2.2. Vulnerabilities

The **SMART** system application has general vulnerabilities common to other like systems. Although CLS-MGC takes the appropriate steps to mitigate such vulnerabilities, complete elimination of such may not be possible. The following list provides a sample of vulnerabilities of the **SMART** system:

- Unauthorized access to:
 - A user's computer
 - FHA Case Number
 - Password information.
- Spyware technologies that monitor keystrokes on a user's computer

- Login information left unprotected

7.2.3. Safeguards

7.2.3.1. Administrative Safeguards

The following administrative safeguards are implemented and enforced:

7.2.3.1.1. Workstation Spyware/Malware

- 7.2.3.1.1.1. User workstations or laptops are safeguarded against spyware and malware technologies to avoid authentication information from being compromised.

7.2.3.1.2. Account Access Data

- 7.2.3.1.2.1. Login data (user ID, password) are protected and not openly displayed.

7.2.3.1.3. Critical Case Data

- 7.2.3.1.3.1. Mortgage Loan Numbers and FHA Case Numbers are protected and not openly displayed.

7.2.3.1.4. Access Control

- 7.2.3.1.4.1. Users are authenticated before permitted to enter the system and edit data.
- 7.2.3.1.4.2. Access rights are based on defined roles and groups.
- 7.2.3.1.4.3. Users are assigned to identified roles within defined groups.

7.2.3.1.5. Application Security

- 7.2.3.1.5.1. Application access is configured based on defined roles & responsibilities of users to their most restrictive values consistent with operational requirements.
- 7.2.3.1.5.2. Application access is assigned in accordance with internal control requirements to maintain clear segregation of duties.

7.2.3.2. Physical Safeguards

Physical security represents the first line of defense against intruders and adversaries attempting to gain access to MGC physical facilities which in turn open potential vulnerabilities to exploitation. There are multiple physical security measures in place for all locations. The buildings are locked down and the Tulsa facility and Ongoing data center monitor all access with cameras and security personnel, around the clock, all year round. Offices and common areas are isolated from the data center.

7.2.3.2.1. Physical Access

Physical access to the centers (Lanham, Ongoing, and Tulsa) is controlled using electromagnetic proxy-card system.

- 7.2.3.2.1.1. Entrances to the MGC sites in Lanham, Tulsa, and Ongoing are equipped with automatically closing and locking doors.

- 7.2.3.2.1.2. Each center is managed and maintained to ensure that access to MGC buildings, rooms, work areas, and spaces is restricted to only the appropriate and authorized personnel.
- 7.2.3.2.1.3. The hardware supporting the electromagnetic proxy-card badge access systems is physically located in a secure area within each data center facility.

7.2.3.2.2. Access Control System

The access system maintains information such as employee names, ID numbers, access badge numbers, issue date of the access badge, as well as what areas the employee is authorized to access.

- 7.2.3.2.2.1. Each system logs the date, time, and location of each entry into the data center..
- 7.2.3.2.2.2. If a connection between a badge reader and the master server supporting the card key system is severed, the badge readers have limited access using the access list stored in memory.

7.2.3.2.3. Visitor Registration & Escort

Mandatory visitor registration and escort policies are enforced.

- 7.2.3.2.3.1. Offices, general work spaces and common areas are isolated from the data center environment.
- 7.2.3.2.3.2. All visitors sign in and out when entering and leaving the facility and are escorted at all times.
- 7.2.3.2.3.3. Visitor logs are reviewed at closeout, maintained on file, and available for further review for one year..
- 7.2.3.2.3.4. Physical access by contractors/subcontractors for MGC is limited to those work areas requiring their presence.
- 7.2.3.2.3.5. Ingress and egress records are maintained for one year..
- 7.2.3.2.3.6. The Director of Information Technology (DoIT) approves initial access to these facilities for employees
- 7.2.3.2.3.7. The Director of Information Technology (DoIT) reviews and approves access lists and authorization credentials once a year.
- 7.2.3.2.3.8. The Facilities Manager at each location maintains the facility access approval of cards, keys, etc.
- 7.2.3.2.3.9. Keys, combinations, and other access devices are secured and inventoried every six months.
- 7.2.3.2.3.10. Keys, combinations, and other access devices changed any time keys are lost, combinations are compromised, or individuals are terminated or transferred.
- 7.2.3.2.3.11. Access is promptly removed for personnel no longer needing it.

7.2.3.2.4. Tulsa, OK Access

- 7.2.3.2.4.1. Access to the floor of the Tulsa, OK office itself is controlled by key cards.
- 7.2.3.2.4.2. Individuals must swipe their key card to activate the appropriate button in the elevator or enter from the stairwell.

7.2.3.2.5. Facilities Management Support

- 7.2.3.2.5.1. Facilities management provides on-call 24/7 support for the Tulsa, OK facility and responds to alarms.
- 7.2.3.2.5.2. Security systems include other proprietary physical security measures.
- 7.2.3.2.5.3. Facility monitoring is conducted on all critical electrical and Heating, Ventilation and Air Conditioning (HVAC) components.

7.2.3.2.6. Unauthorized Data Access

Adequate controls are in place to prevent users from gaining access to unauthorized information while a workstation is left unattended.

- 7.2.3.2.6.1. Current settings require session lockout after ten minutes of idle time.
- 7.2.3.2.6.2. Re-authentication is required to regain access.

7.2.3.2.7. Physical Protection of Sensitive Data

MGC ensures that facilities processing, transmitting, or storing sensitive information incorporate physical protection measures. These facilities include:

- Data centers
- Wiring closets
- Server rooms at non-MGC facilities
- Contractor facilities housing MGC IT systems supporting the **SMART** system on behalf of HUD

7.2.3.3. Technical Safeguards

7.2.3.3.1. User Access

The risk of using passwords—as opposed to other forms of authentication—is somewhat mitigated when information systems are accessed through local interfaces and contained within a controlled environment with physical access controls. Thus, passwords that meet NIST SP 800-63 level 2 password requirements used locally in an environment with adequate physical access controls can be used in moderate-impact system, such as **SMART**, as defined in FIPS 199 and NIST SP 800-53.

- 7.2.3.3.1.1. User access to the **SMART** system and related devices are restricted to those with prior management approval for employees and contractors.
 - MGC HR and the HUD Information System Security Officer (ISSO) are responsible for ensuring that appropriate sensitivity levels are associated with each position requiring access to **SMART**
 - Job descriptions are documented to accurately reflect assigned duties and sensitivity requirements
 - MGC HR and the HUD ISSO have the responsibility to verify that background investigations, for all individuals required, are submitted and their progress is monitored and documented until completed

- Background investigations are carried out commensurate with the sensitivity of the information and the risk to that information and system
- 7.2.3.3.1.2. System users are required to read and sign their respective organization's Rules of Behavior for system access.
- Access to each network layer is controlled and monitored by personnel through formal defined authorization, approval, and monitoring processes
 - Authentication at the network layer incorporates a number of additional security layers, including firewalls, routers, and VPNs
 - Access to the network, operating system, and database is restricted and granted only to specific pre-approved individuals by the system owner
- 7.2.3.3.1.3. User profiles define individual **SMART** users linked to one or more roles.
- Permission lists are added to each role, which controls a user's access level
 - Each user of the information system has a unique profile and login attempts are verified and validated against a user access list
 - The system authenticates users with the values specified in the user ID and password field. All unverifiable login attempts are denied access to the system
- 7.2.3.3.2. **Process Safeguards**
- 7.2.3.3.2.1. Users do not have the ability to delete existing information but, can add new effective information.
- 7.2.3.3.2.2. The **SMART** application has a built-in "Edit" functionality that ensures data integrity—for example, inputs can only be done in the date field specifically for dates.
- 7.2.3.3.2.3. Document IDs created in the system are sequentially assigned and controlled to disallow duplicates, such as voucher IDs and journal IDs.
- 7.2.3.3.2.4. The application invokes system controls on processing transactions; for example, a newly created journal can only be posted once to the ledger.
- 7.2.3.3.2.5. The software and information is protected against unauthorized changes by enabling the **SMART** "Effective Date" functionality to log and maintain audit trails of changes made to the configuration tables.

7.2.3.4. **Network Perimeter**

7.2.3.4.1. **Intrusion Detection System**

A third-party Intrusion Detection System (IDS) SonicOS, which includes a firewall and gateway virus scanning, is installed to continuously scan the SMART environment for abnormal behavior, suspicious traffic patterns, and known vulnerabilities (such as specific signatures in network packets). The IDS system is configured to automatically issue e-mail alerts based on conclusions made at the IDS console. An e-mail alert is sent to the **SMART** system administrators for review and potential action.

7.2.3.4.2. Access Model

Access to the **SMART** system is limited to users with a valid network login and password. The **SMART** database uses Windows Authentication to validate user rights. Active Directory group assignment is the basis for rights generally to access **SMART**.

- 7.2.3.4.2.1. Password length: The passwords for LAN users must be between eight (8) and sixteen (16) alpha/numeric characters in length; for Citrix, the characters include upper and lowercase letters, numbers and symbols.
- 7.2.3.4.2.2. Password history: A password history policy is enabled, whereby the last twelve (12) passwords are remembered by the system; users must create a password unlike their previous twelve (12) passwords.
- 7.2.3.4.2.3. Forced changes: Every ninety (90) days, the system Domain Security Policies force the user to change his/her password upon logging onto the computer.
- 7.2.3.4.2.4. The new password must meet the password policy or it will be rejected.
- 7.2.3.4.2.5. Compromised Credentials: The procedures for end users with compromised login credentials are covered in the Rules of Behavior. Upon notification of compromised login credentials, the MGC IT department immediately disables the login and password. Log records are inspected to see, what, if any unauthorized activities have occurred using the compromised credentials.

The procedures for handling the compromise of login credentials for Citrix users are as follows:

- The network administrator resets the password for a user when either the user or the network administrator believes the password has been comprised.
 - Then the GTR is notified via e-mail to convey the password to the proper user.
- 7.2.3.4.2.6. Secure VPN Access: The VPN provides a secure, encrypted data connection between the MGC facilities (Tulsa and Lanham) and HUD. Single Family Asset Management staff will connect transparently to a Citrix server located at the MGC Tulsa facility, which facilitated all of the data transactions between the staff on the actual **SMART** application.

7.3. System Monitoring and Auditing

The **SMART** system environment has implemented a combination of hardware-based firewalls and router Access Control Lists (ACL) to monitor network security. A third-party IDS (SonicOs) is installed to continuously scan the network for abnormal behavior, suspicious traffic patterns, and known vulnerabilities (such as specific signatures in network packets). The IDS system is configured to automatically issue e-mail alerts based on conclusions made at the IDS console. An e-mail alert is sent to the Network Administrator(s) for review and potential action. Critical alerts from the IDS system are escalated. A ticket is then created to log and track the status of these critical alerts to resolution.

Additional security monitoring is performed using firewalls and the performance of periodic vulnerability assessments. Logging is enabled on the network firewalls to capture the volume of inbound denials. When volumes exceed preset thresholds, network personnel are notified immediately by e-mail. The details included in the e-mail are considered for risk and the next appropriate action. For extreme volume conditions, a ticket

is created to track the effort spent to address the alert. Additionally, the logs are retained for subsequent review in case further evaluation is required.

7.3.1. Journalizing

New records added to the system identify the creating user and the date which the record was created. Records that are modified identify certain information about the change and the modifying user and the date and time when the record was modified. Additionally, the application comes with system controls on processing transaction; for example, a journal created can only be posted once to the ledger.

7.3.1.1. Triggering Criteria

Journaling occurs upon addition or modification of a record in the database. Users do not have the ability to delete existing information but, can add new effective information. Also, certain tables in the **SMART** application track and maintain a log of changes made by the particular user and associate a date and time stamp. Any changes to the following tables trigger a journal entry in the audit logging tables:

- a_borrower
- a_loan
- a_loan_ach
- a_loan_checking
- a_loan_excptn
- a_loan_trans
- a_property
- a_release_activity
- a_servicing_activity
- a_servicing_mgmt

7.3.1.1.1. tu_a_loan_audit_log

The **tu_a_loan_audit_log** trigger is an example of the triggers tied to all of the aforementioned tables.

- 7.3.1.1.1.1. **tu_a_loan_audit_log** is a “for update” trigger which means that it fires every time an update is made to the **a_loan** table.
- 7.3.1.1.1.2. **tu_a_loan_audit_log** has a modular design in that it pulls the table columns from the **syscolumns** table⁷ with the exception of the audit columns within the **a_loan** table⁸.
- 7.3.1.1.1.3. Once **tu_a_loan_audit_log** pulls the column names it checks the update transaction to see how to enter data in the **a_audit_log** table.

⁷ The **syscolumns** table is a Microsoft SQL Server 2000 system table which describes the user tables within the database.

⁸ The audit columns include: create user (create_user_id), create date (create_date), change user (maint_user_id) and change date (maint_date).

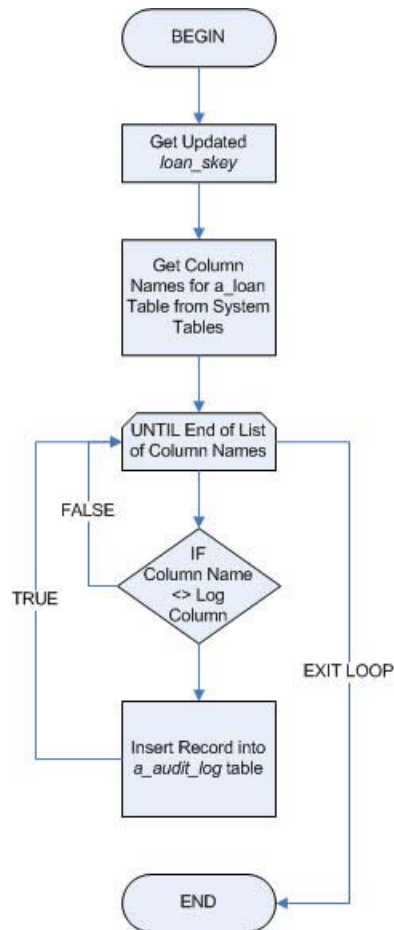


Figure 46. Loan Audit Log Process

7.3.1.1.1.4. **tu_a_loan_audit_log** records the:

- Unique loan identifier (loan_skey)
- New value
- Old value
- Table
- Column
- Modifying user
- The date and time of a modification

7.3.1.2. Identification Information

A journal records the unique user identification number for each record addition or modification in the database. Unique identifiers are as follows:

7.3.1.2.1. **loan_skey**

7.3.1.2.1.1. The primary key for the **a_loan** table

7.3.1.2.1.2. **loan_skey** creates a master record for each loan

- 7.3.1.2.2.13. All data are traced back to `a_loan` and, therefore, to the `loan_key`.

Data to be captured for each journal entry includes the user id and date of the insert or change. All data can be traced back to the `a_loan` table.

Figure 48. a_loan Table Data

7.3.1.3.1.1. The **a_loan** table contains a master record for each loan record in the **SMART** system.

7.3.1.3.1.3. The design allows for multiple loan/FHA case numbers (loan_no; fha_case_no).

Functional Requirements Document

7.3.1.3.1.5. Data central to the ongoing loan management are stored in this table.

7.3.1.3.1.6. Such data include the:

- Original principal balance (orig_prin_bal)
- Interest rate (int_rate)
- Loan term (loan_term)
- Mortgage insurance premium (mip),
- Other information.

7.3.1.4. Journal Use

7.3.1.4.1. Simple Database Query

A simple database query can be used to review journal entries based on various criteria.

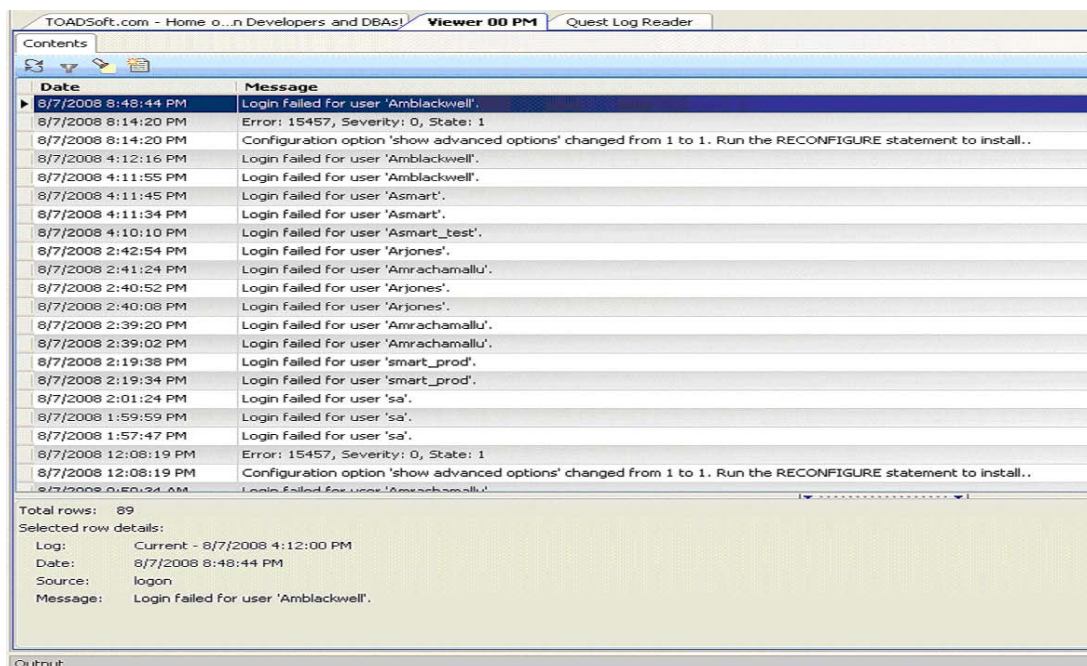
7.3.1.4.2. Audit Trace File

An audit log trace file is created for the database level changes.

7.3.2. Audit Trail

7.3.2.1.1. Trace Files

User activities within the **SMART** system database are recorded in trace files that serve as audit trails.



| Date | Message |
|----------------------|--|
| 8/7/2008 8:48:44 PM | Login failed for user 'Amblackwell'. |
| 8/7/2008 8:14:20 PM | Error: 15457, Severity: 0, State: 1 |
| 8/7/2008 8:14:20 PM | Configuration option 'show advanced options' changed from 1 to 1. Run the RECONFIGURE statement to install.. |
| 8/7/2008 4:12:16 PM | Login failed for user 'Amblackwell'. |
| 8/7/2008 4:11:55 PM | Login failed for user 'Amblackwell'. |
| 8/7/2008 4:11:45 PM | Login failed for user 'Asmart'. |
| 8/7/2008 4:11:34 PM | Login failed for user 'Asmart'. |
| 8/7/2008 4:10:10 PM | Login failed for user 'Asmart_test'. |
| 8/7/2008 2:42:54 PM | Login failed for user 'Arjones'. |
| 8/7/2008 2:41:24 PM | Login failed for user 'Amrachamallu'. |
| 8/7/2008 2:40:52 PM | Login failed for user 'Arjones'. |
| 8/7/2008 2:40:08 PM | Login failed for user 'Arjones'. |
| 8/7/2008 2:39:20 PM | Login failed for user 'Amrachamallu'. |
| 8/7/2008 2:39:02 PM | Login failed for user 'Amrachamallu'. |
| 8/7/2008 2:19:38 PM | Login failed for user 'smart_prod'. |
| 8/7/2008 2:19:34 PM | Login failed for user 'smart_prod'. |
| 8/7/2008 2:01:24 PM | Login failed for user 'sa'. |
| 8/7/2008 1:59:59 PM | Login failed for user 'sa'. |
| 8/7/2008 1:57:47 PM | Login failed for user 'sa'. |
| 8/7/2008 12:08:19 PM | Error: 15457, Severity: 0, State: 1 |
| 8/7/2008 12:08:19 PM | Configuration option 'show advanced options' changed from 1 to 1. Run the RECONFIGURE statement to install.. |
| 8/7/2008 9:50:24 AM | Login failed for user 'Amrachamallu'. |

Total rows: 89
 Selected row details:
 Log: Current - 8/7/2008 4:12:00 PM
 Date: 8/7/2008 8:48:44 PM
 Source: logon
 Message: Login failed for user 'Amblackwell'.

Figure 49. Sample Security Log

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CLSSMT.smart_prod

Welcome Summary Statistics DML/DDI Full Log Transactions

| Command | Object Name | Parent Table | Date |
|------------|---------------|--------------|----------|
| UPDATE ROW | dbo.pc_seqcti | | 8/8/2006 |
| DELETE ROW | dbo.a_loan | | 8/8/2006 |
| INSERT ROW | dbo.a_loan | | 8/8/2006 |
| DELETE ROW | dbo.a_loan | | 8/8/2006 |
| INSERT ROW | dbo.a_loan | | 8/8/2006 |
| DELETE ROW | dbo.a_loan | | 8/8/2006 |
| INSERT ROW | dbo.a_loan | | 8/8/2006 |
| DELETE ROW | dbo.a_loan | | 8/8/2006 |
| INSERT ROW | dbo.a_loan | | 8/8/2006 |
| DELETE ROW | dbo.a_loan | | 8/8/2006 |
| INSERT ROW | dbo.a_loan | | 8/8/2006 |
| DELETE ROW | dbo.a_loan | | 8/8/2006 |
| INSERT ROW | dbo.a_loan | | 8/8/2006 |
| DELETE ROW | dbo.a_loan | | 8/8/2006 |
| INSERT ROW | dbo.a_loan | | 8/8/2006 |

Record 6 of 100232

DELETE FROM [a_loan]...

| Column Name | Type | Old Value |
|--------------------|-------------|------------------------|
| loan_key | int | 391633 |
| fha_case_no | varchar(20) | |
| tax_id_verified | char(1) | Y |
| first_delinq_date | datetime | (null) |
| loan_no | varchar(15) | 441568446 |
| branch_code | char(2) | 88 |
| officer_code | char(2) | FP |
| orig_prin_bal | money | 4572.32 |
| orig_loan_date | datetime | 12/11/2006 12:00:00 AM |
| loan_term | varchar(4) | 2106 |
| pay_type_code | char(1) | Q |
| contract_type_code | char(1) | F |

Record Data User Info Redo SQL Undo SQL

Output

Figure 50. Sample Transaction Log

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Contents

| Date | Message |
|---------------------|---|
| 8/2/2008 9:53:07 AM | [100] Microsoft SQLServerAgent version 8.00.2039 (x86 unicode retail build) : Process ID |
| 8/2/2008 9:53:07 AM | [100] Microsoft SQLServerAgent version 8.00.2039 (x86 unicode retail build) : Process ID 2868 |
| 8/2/2008 9:53:07 AM | [101] SQL Server MGCSERVTEST version 8.00.2039 (0 connection limit) |
| 8/2/2008 9:53:07 AM | [102] SQL Server ODBC driver version 3.86.3959 |
| 8/2/2008 9:53:07 AM | [103] NetLib being used by driver is DBMSSHRN.DLL; Local host server is |
| 8/2/2008 9:53:07 AM | [310] 2 processor(s) and 1016 MB RAM detected |
| 8/2/2008 9:53:07 AM | [339] Local computer is MGCSERVTEST running Windows NT 5.2 (3790) Service Pack 2 |
| 8/2/2008 9:53:07 AM | [364] The Messenger service has not been started - NetSend notifications will not be sent |
| 8/2/2008 9:53:07 AM | [129] SQLSERVERAGENT starting under Windows NT service control |
| 8/2/2008 9:53:07 AM | [260] Unable to start mail session (reason: No mail profile defined) |
| 8/2/2008 9:53:07 AM | [396] An idle CPU condition has not been defined - OnIdle job schedules will have no effect |
| 8/2/2008 9:52:20 AM | [393] Waiting for SQL Server to recover databases... |

Total rows: 12

Selected row details:

Log: Current - 8/2/2008 9:53:08 AM

Date: 8/2/2008 9:53:07 AM

Type: Message

Message: [100] Microsoft SQLServerAgent version 8.00.2039 (x86 unicode retail build) : Process ID

Output

Figure 51. Sample Agent Log

7.3.2.1.2. Logs

The database management system provides these logs:

- Security
- Transaction
- Agent

7.3.2.1.3. User Tables

Additionally, certain tables that capture key financial and/or personal data log that activity in user tables within the database itself⁹. A list of the tables that update the audit data is listed in Section 7.3.1.1 above.

7.3.2.1.4. Human Interface

The Network and Security Manager routinely reviews these trace files for incompatible actions and investigate any abnormalities.

7.3.2.2. Audit Reports

The following audit reports, accessed under the **Report** menu as **Servicing/Release Reports**, are available to track changes

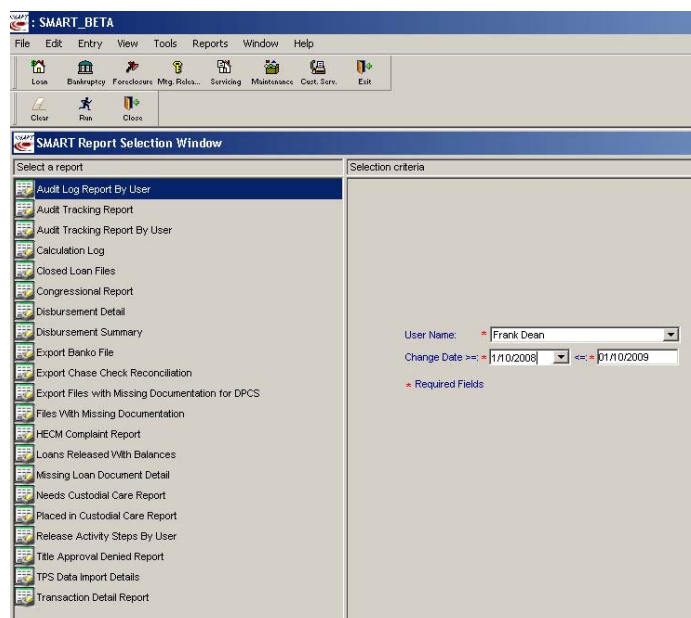


Figure 52. SMART Security Report Options

⁹ The user table is a_audit_log, additionally, a legacy table, a_audit_tracking, provides a similar function but with only captures a small portion of the columns in the a_loan table. The a_audit_tracking table functionality is phased out but the content is preserved indefinitely.

7.3.2.4.1. Daily Audit Log Count

This keeps a count of the number of changes made in each table.

| Table Name | Record Count |
|------------------------|--------------|
| a_borrower | 41 |
| a_loan | 1431 |
| a_loan_ach | 0 |
| a_loan_checking | 549 |
| a_loan_excptn | 2 |
| a_loan_trans | 0 |
| a_property | 18 |
| a_release_activity | 531 |
| a_servicing_activity | 808 |
| a_servicing_mgmt | 81 |
| security_group_mapping | 0 |
| security_groupings | 0 |
| security_info | 0 |
| security_users | 0 |

7.3.2.4.2. Daily Release Summary

This summary provides a daily and year-to-date summary of releases initiated, inserted, and downloaded.

| Daily Release Summary for 01/07/2009 | |
|---|-------|
| Releases Initiated in SMART today | 48 |
| Releases Inserted into Rēkon today | 48 |
| Releases Initiated in SMART since 04/09/2008 | 12751 |
| Releases Downloaded into Rēkon since 04/09/2008 | 12881 |
| No loans exist in SMART with a missing step in Rēkon | |

7.3.2.4.3. Daily Check Report

This report provides the following information regarding checks:

- Number of checks written/voided daily
- Totals
- Account numbers check was drawn from
- Check number
- Print date
- Amount
- Payee
- Loan number

- loan_skey

7.3.2.4.4. Rēkon Daily Detail Report

This report is used to track the number of daily release activity performed in **SMART** and Rēkon and provides the following information:

- loan_Skey
- Loan number
- Borrower
- Scheduled date
- Actual date

7.3.2.4.5. SQL Server Job System

Daily Rēkon Reports completed on \\CLSSMT keep track of:

- Jobs performed on the SQL server
- The success or failure of those jobs

7.3.2.5. Summary Totals Back to Component Transactions

The following audit reports are available within **SMART** to track changes under the **Report** menu as **Servicing/Release Reports**:

- Audit Log Report by User
- Audit Tracking Report
- Audit Tracking Report by User

7.3.2.6. All Record Disposition Schedules

- All audit records and electronic files are maintained for an indefinite period
- The **SMART** system is owned by HUD
- CLS-MGC is the contractor/subcontractor awarded the Contract to maintain, enhance, and modify the system
- Upon contract end, the data shall still be maintained within **SMART** or handed over to the custody of HUD and/or its designee